## Sequence List

- <110> Rosen, et al.
- <120> 337 Human Secreted Proteins
- <130> PS905
- <140> Unassigned
- <141> 2003-09-20
- <150> US 60/040,162
- <151> 1997-03-07
- <150> US 60/043,576
- <151> 1997-04-11
- <150> US 60/047,601
- <151> 1997-05-23
- <150> US 60/056,845
- <151> 1997-08-22
- <150> US 60/043,580
- <151> 1997-04-11
- <150> US 60/047,599
- <151> 1997-05-23
- <150> US 60/056,664
- <151> 1997-08-22
- <150> US 60/043,314
- <151> 1997-04-11
- <150> US 60/047,632
- <151> 1997-05-23
- <150> US 60/056,892
- <151> 1997-08-22
- <150> US 60/043,568
- <151> 1997-04-11
- <150> US 60/047,595
- <151> 1997-05-23
- <150> US 60/056,632
- <151> 1997-08-22
- <150> US 60/043,578
- <151> 1997-04-11
- <150> US 60/040,333
- <151> 1997-03-07
- <150> US 60/043,670

- <151> 1997-04-11
- <150> US 60/047,596
- <151> 1997-05-23
- <150> US 60/056,864
- <151> 1997-08-22
- <150> US 60/043,674
- <151> 1997-04-11
- <150> US 60/047,612
- <151> 1997-05-23
- <150> US 60/056,631
- <151> 1997-08-22
- <150> US 60/043,569
- <151> 1997-04-11
- <150> US 60/047,588
- <151> 1997-05-23
- <150> US 60/056,876
- <151> 1997-08-22
- <150> US 60/043,671
- <151> 1997-04-11
- <150> US 60/043,311
- <151> 1997-04-11
- <150> US 60/038,621
- <151> 1997-03-07
- <150> US 60/043,672
- <151> 1997-04-11
- <150> US 60/047,613
- <151> 1997-05-23
- <150> US 60/056,636
- <151> 1997-08-22
- <150> US 60/043,669
- <151> 1997-04-11
- <150> US 60/047,582
- <151> 1997-05-23
- <150> US 60/056,910
- <151> 1997-08-22
- <150> US 60/043,315
- <151> 1997-04-11
- <150> US 60/047,598

- <151> 1997-05-23
- <150> US 60/056,874
- <151> 1997-08-22
- <150> US 60/043,312
- <151> 1997-04-11
- <150> US 60/047,585
- <151> 1997-05-23
- <150> US 60/056,881
- <151> 1997-08-22
- <150> US 60/043,313
- <151> 1997-04-11
- <150> US 60/047,586
- <151> 1997-05-23
- <150> US 60/056,909
- <151> 1997-08-22
- <150> US 60/040,161
- <151> 1997-03-07
- <150> US 60/047,587
- <151> 1997-05-23
- <150> US 60/056,879
- <151> 1997-08-22
- <150> US 60/047,500
- <151> 1997-05-23
- <150> US 60/056,880
- <151> 1997-08-22
- <150> US 60/047,584
- <151> 1997-05-23
- <150> US 60/056,894
- <151> 1997-08-22
- <150> US 60/047,492
- <151> 1997-05-23
- <150> US 60/056,911
- <151> 1997-08-22
- <150> US 60/040,626
- <151> 1997-03-07
- <150> US 60/047,503
- <151> 1997-05-23
- <150> US 60/056,903

- <151> 1997-08-22
- <150> US 60/047,501
- <151> 1997-05-23
- <150> US 60/056,637
- <151> 1997-08-22
- <150> US 60/047,590
- <151> 1997-05-23
- <150> US 60/056,875
- <151> 1997-08-22
- <150> US 60/047,581
- <151> 1997-05-23
- <150> US 60/056,882
- <151> 1997-08-22
- <150> US 60/047,592
- <151> 1997-05-23
- <150> US 60/056,888
- <151> 1997-08-22
- <150> US 60/040,334
- <151> 1997-03-07
- <150> US 60/047,618
- <151> 1997-05-23
- <150> US 60/056,872
- <151> 1997-08-22
- <150> US 60/047,617
- <151> 1997-05-23
- <150> US 60/056,662
- <151> 1997-08-22
- <150> US 60/047,589
- <151> 1997-05-23
- <150> US 60/056,862
- <151> 1997-08-22
- <150> US 60/047,594
- <151> 1997-05-23
- <150> US 60/056,884
- <151> 1997-08-22
- <150> US 60/047,583
- <151> 1997-05-23
- <150> US 60/056,878

- <151> 1997-08-22
- <150> US 60/040,336
- <151> 1997-03-07
- <150> US 60/047,502
- <151> 1997-05-23
- <150> US 60/056,893
- <151> 1997-08-22
- <150> US 60/047,633
- <151> 1997-05-23
- <150> US 60/056,630
- <151> 1997-08-22
- <150> US 60/047,593
- <151> 1997-05-23
- <150> US 60/056,887
- <151> 1997-08-22
- <150> US 60/040,163
- <151> 1997-03-07
- <150> US 60/047,597
- <151> 1997-05-23
- <150> US 60/056,889
- <151> 1997-08-22
- <150> US 60/047,615
- <151> 1997-05-23
- <150> US 60/056,877
- <151> 1997-08-22
- <150> US 60/047,600
- <151> 1997-05-23
- <150> US 60/056,886
- <151> 1997-08-22
- <150> US 60/047,614
- <151> 1997-05-23
- <150> US 60/056,908
- <151> 1997-08-22
- <150> US 60/040,710
- <151> 1997-03-14
- <150> US 60/050,934
- <151> 1997-05-30
- <150> US 60/048,100

- <151> 1997-05-30
- <150> US 60/040,762
- <151> 1997-03-14
- <150> US 60/048,357
- <151> 1997-05-30
- <150> US 60/048,189
- <151> 1997-05-30
- <150> US 60/041,277
- <151> 1997-03-21
- <150> US 60/048,188
- <151> 1997-05-30
- <150> US 60/048,094
- <151> 1997-05-30
- <150> US 60/048,350
- <151> 1997-05-30
- <150> US 60/048,135
- <151> 1997-05-30
- <150> US 60/042,344
- <151> 1997-03-21
- <150> US 60/048,187
- <151> 1997-05-30
- <150> US 60/048,099
- <151> 1997-05-30
- <150> US 60/050,937
- <151> 1997-05-30
- <150> US 60/048,352
- <151> 1997-05-30
- <150> US 60/041,276
- <151> 1997-03-21
- <150> US 60/048,069
- <151> 1997-05-30
- <150> US 60/048,131
- <151> 1997-05-30
- <150> US 60/048,186
- <151> 1997-05-30
- <150> US 60/048,095
- <151> 1997-05-30
- <150> US 60/041,281

- <151> 1997-03-21
- <150> US 60/048,355
- <151> 1997-05-30
- <150> US 60/048,096
- <151> 1997-05-30
- <150> US 60/048,351
- <151> 1997-05-30
- <150> US 60/048,154
- <151> 1997-05-30
- <150> US 60/048,160
- <151> 1997-05-30
- <150> US 60/042,825
- <151> 1997-04-08
- <150> US 60/048,070
- <151> 1997-05-30
- <150> US 60/042,727
- <151> 1997-04-08
- <150> US 60/048,068
- <151> 1997-05-30
- <150> US 60/042,726
- <151> 1997-04-08
- <150> US 60/048,184
- <151> 1997-05-30
- <150> US 60/042,728
- <151> 1997-04-08
- <150> US 60/042,754
- <151> 1997-04-08
- <150> US 60/048,190
- <151> 1997-05-30
- <150> US 60/044,039
- <151> 1997-05-30
- <150> US 60/048,093
- <151> 1997-05-30
- <150> US 60/048,885
- <151> 1997-06-06
- <150> US 60/057,645
- <151> 1997-09-05
- <150> US 60/049,375

- <151> 1997-06-06
- <150> US 60/057,642
- <151> 1997-09-05
- <150> US 60/048,881
- <151> 1997-06-06
- <150> US 60/057,668
- <151> 1997-09-05
- <150> US 60/048,880
- <151> 1997-06-06
- <150> US 60/057,635
- <151> 1997-09-05
- <150> US 60/048,896
- <151> 1997-06-06
- <150> US 60/057,627
- <151> 1997-09-05
- <150> US 60/049,020
- <151> 1997-06-06
- <150> US 60/057,667
- <151> 1997-09-05
- <150> US 60/048,876
- <151> 1997-06-06
- <150> US 60/057,666
- <151> 1997-09-05
- <150> US 60/048,895
- <151> 1997-06-06
- <150> US 60/057,764
- <151> 1997-09-05
- <150> US 60/048,884
- <151> 1997-06-06
- <150> US 60/057,643
- <151> 1997-09-05
- <150> US 60/048,894
- <151> 1997-06-06
- <150> US 60/057,769
- <151> 1997-09-05
- <150> US 60/048,971
- <151> 1997-06-06
- <150> US 60/057,763

- <151> 1997-09-05
- <150> US 60/048,964
- <151> 1997-06-06
- <150> US 60/057,650
- <151> 1997-09-05
- <150> US 60/048,882
- <151> 1997-06-06
- <150> US 60/057,584
- <151> 1997-09-05
- <150> US 60/048,899
- <151> 1997-06-06
- <150> US 60/057,647
- <151> 1997-09-05
- <150> US 60/048,893
- <151> 1997-06-06
- <150> US 60/057,661
- <151> 1997-09-05
- <150> US 60/048,900
- <151> 1997-06-06
- <150> US 60/057,662
- <151> 1997-09-05
- <150> US 60/048,901
- <151> 1997-06-06
- <150> US 60/057,646
- <151> 1997-09-05
- <150> US 60/048,892
- <151> 1997-06-06
- <150> US 60/057,654
- <151> 1997-09-05
- <150> US 60/048,915
- <151> 1997-06-06
- <150> US 60/057,651
- <151> 1997-09-05
- <150> US 60/049,019
- <151> 1997-06-06
- <150> US 60/057,644
- <151> 1997-09-05
- <150> US 60/048,970

- <151> 1997-06-06
- <150> US 60/057,765
- <151> 1997-09-05
- <150> US 60/048,972
- <151> 1997-06-06
- <150> US 60/057,762
- <151> 1997-09-05
- <150> US 60/048,916
- <151> 1997-06-06
- <150> US 60/057,775
- <151> 1997-09-05
- <150> US 60/049,373
- <151> 1997-06-06
- <150> US 60/057,648
- <151> 1997-09-05
- <150> US 60/048,875
- <151> 1997-06-06
- <150> US 60/057,774
- <151> 1997-09-05
- <150> US 60/049,374
- <151> 1997-06-06
- <150> US 60/057,649
- <151> 1997-09-05
- <150> US 60/048,917
- <151> 1997-06-06
- <150> US 60/057,770
- <151> 1997-09-05
- <150> US 60/048,949
- <151> 1997-06-06
- <150> US 60/057,771
- <151> 1997-09-05
- <150> US 60/048,974
- <151> 1997-06-06
- <150> US 60/057,761
- <151> 1997-09-05
- <150> US 60/048,883
- <151> 1997-06-06
- <150> US 60/057,760

- <151> 1997-09-05
- <150> US 60/048,897
- <151> 1997-06-06
- <150> US 60/057,776
- <151> 1997-09-05
- <150> US 60/048,898
- <151> 1997-06-06
- <150> US 60/057,778
- <151> 1997-09-05
- <150> US 60/048,962
- <151> 1997-06-06
- <150> US 60/057,629
- <151> 1997-09-05
- <150> US 60/048,963
- <151> 1997-06-06
- <150> US 60/057,628
- <151> 1997-09-05
- <150> US 60/048,877
- <151> 1997-06-06
- <150> US 60/057,777
- <151> 1997-09-05
- <150> US 60/048,878
- <151> 1997-06-06
- <150> US 60/057,634
- <151> 1997-09-05
- <150> US 60/049,608
- <151> 1997-06-13
- <150> US 60/058,669
- <151> 1997-09-12
- <150> US 60/049,566
- <151> 1997-06-13
- <150> US 60/058,668
- <151> 1997-09-12
- <150> US 60/052,989
- <151> 1997-06-13
- <150> US 60/058,750
- <151> 1997-09-12
- <150> US 60/049,607

- <151> 1997-06-13
- <150> US 60/058,665
- <151> 1997-09-12
- <150> US 60/049,611
- <151> 1997-06-13
- <150> US 60/058,971
- <151> 1997-09-12
- <150> US 60/050,901
- <151> 1997-06-13
- <150> US 60/058,972
- <151> 1997-09-12
- <150> US 60/049,609
- <151> 1997-06-13
- <150> US 60/058,975
- <151> 1997-09-12
- <150> US 60/048,356
- <151> 1997-05-30
- <150> US 60/056,296
- <151> 1997-08-29
- <150> US 60/048,101
- <151> 1997-05-30
- <150> US 60/056,293
- <151> 1997-08-29
- <150> US 60/050,935
- <151> 1997-05-30
- <150> US 60/056,250
- <151> 1997-08-29
- <150> US 60/049,610
- <151> 1997-06-13
- <150> US 60/061,060
- <151> 1997-10-02
- <150> US 60/049,606
- <151> 1997-06-13
- <150> US 60/060,841
- <151> 1997-10-02
- <150> US 60/049,550
- <151> 1997-06-13
- <150> US 60/060,834

- <151> 1997-10-02
- <150> US 60/049,549
- <151> 1997-06-13
- <150> US 60/060,865
- <151> 1997-10-02
- <150> US 60/049,548
- <151> 1997-06-13
- <150> US 60/060,844
- <151> 1997-10-02
- <150> US 60/049,547
- <151> 1997-06-13
- <150> US 60/061,059
- <151> 1997-10-02
- <150> US 60/051,381
- <151> 1997-07-01
- <150> US 60/058,598
- <151> 1997-09-12
- <150> US 60/051,480
- <151> 1997-07-01
- <150> US 60/058,663
- <151> 1997-09-12
- <150> US 60/051,926
- <151> 1997-07-08
- <150> US 60/058,785
- <151> 1997-09-12
- <150> US 60/052,793
- <151> 1997-07-08
- <150> US 60/058,664
- <151> 1997-09-12
- <150> US 60/051,925
- <151> 1997-07-08
- <150> US 60/058,660
- <151> 1997-09-12
- <150> US 60/051,929
- <151> 1997-07-08
- <150> US 60/058,661
- <151> 1997-09-12
- <150> US 60/052,803

- <151> 1997-07-08
- <150> US 60/055,722
- <151> 1997-08-18
- <150> US 60/052,732
- <151> 1997-07-08
- <150> US 60/055,723
- <151> 1997-08-18
- <150> US 60/051,932
- <151> 1997-07-08
- <150> US 60/055,948
- <151> 1997-08-18
- <150> US 60/051,931
- <151> 1997-07-08
- <150> US 60/055,949
- <151> 1997-08-18
- <150> US 60/051,916
- <151> 1997-07-08
- <150> US 60/055,953
- <151> 1997-08-18
- <150> US 60/051,930
- <151> 1997-07-08
- <150> US 60/055,950
- <151> 1997-08-18
- <150> US 60/051,918
- <151> 1997-07-08
- <150> US 60/055,947
- <151> 1997-08-18
- <150> US 60/051,920
- <151> 1997-07-08
- <150> US 60/055,964
- <151> 1997-08-18
- <150> US 60/052,733
- <151> 1997-07-08
- <150> US 60/056,360
- <151> 1997-08-18
- <150> US 60/052,795
- <151> 1997-07-08
- <150> US 60/055,684

- <151> 1997-08-18
- <150> US 60/051,919
- <151> 1997-07-08
- <150> US 60/055,984
- <151> 1997-08-18
- <150> US 60/051,928
- <151> 1997-07-08
- <150> US 60/055,954
- <151> 1997-08-18
- <150> US 60/052,870
- <151> 1997-07-16
- <150> US 60/055,952
- <151> 1997-08-18
- <150> US 60/052,871
- <151> 1997-07-16
- <150> US 60/055,725
- <151> 1997-08-18
- <150> US 60/052,872
- <151> 1997-07-16
- <150> US 60/056,359
- <151> 1997-08-18
- <150> US 60/052,661
- <151> 1997-07-16
- <150> US 60/055,985
- <151> 1997-08-18
- <150> US 60/052,874
- <151> 1997-07-16
- <150> US 60/055,724
- <151> 1997-08-18
- <150> US 60/052,873
- <151> 1997-07-16
- <150> US 60/055,726
- <151> 1997-08-18
- <150> US 60/052,875
- <151> 1997-07-16
- <150> US 60/056,361
- <151> 1997-08-18
- <150> US 60/053,440

- <151> 1997-07-22
- <150> US 60/055,989
- <151> 1997-08-18
- <150> US 60/053,441
- <151> 1997-07-22
- <150> US 60/055,946
- <151> 1997-08-18
- <150> US 60/053,442
- <151> 1997-07-22
- <150> US 60/055,683
- <151> 1997-08-18
- <150> US 60/054,212
- <151> 1997-07-30
- <150> US 60/055,968
- <151> 1997-08-18
- <150> US 60/054,209
- <151> 1997-07-30
- <150> US 60/055,972
- <151> 1997-08-18
- <150> US 60/054,234
- <151> 1997-07-30
- <150> US 60/055,969
- <151> 1997-08-18
- <150> US 60/055,386
- <151> 1997-08-05
- <150> US 60/055,986
- <151> 1997-08-18
- <150> US 60/054,807
- <151> 1997-08-05
- <150> US 60/055,970
- <151> 1997-08-18
- <150> US 60/054,215
- <151> 1997-07-30
- <150> US 60/056,543
- <151> 1997-08-19
- <150> US 60/054,218
- <151> 1997-07-30
- <150> US 60/056,561

- <151> 1997-08-19
- <150> US 60/054,214
- <151> 1997-07-30
- <150> US 60/056,534
- <151> 1997-08-19
- <150> US 60/054,236
  - <151> 1997-07-30
  - <150> US 60/056,729
  - <151> 1997-08-19
  - <150> US 60/054,213
  - <151> 1997-07-30
  - <150> US 60/056,727
  - <151> 1997-08-19
  - <150> US 60/054,211
  - <151> 1997-07-30
  - <150> US 60/056,554
  - <151> 1997-08-19
  - <150> US 60/054,217
  - <151> 1997-07-30
  - <150> US 60/056,730
  - <151> 1997-08-19
  - <150> US 60/055,312
  - <151> 1997-08-05
  - <150> US 60/056,563
  - <151> 1997-08-19
  - <150> US 60/055,309
  - <151> 1997-08-05
  - <150> US 60/056,557
  - <151> 1997-08-19
  - <150> US 60/055,310
  - <151> 1997-08-05
  - <150> US 60/056,371
  - <151> 1997-08-19
  - <150> US 60/054,798
  - <151> 1997-08-05
  - <150> US 60/056,732
  - <151> 1997-08-19
  - <150> US 60/056,369

- <151> 1997-08-19
- <150> US 60/056,535
- <151> 1997-08-19
- <150> US 60/056,556
- <151> 1997-08-19
- <150> US 60/056,555
- <151> 1997-08-19
- <150> US 60/054,806
- <151> 1997-08-05
- <150> US 60/056,366
- <151> 1997-08-19
- <150> US 60/054,809
- <151> 1997-08-05
- <150> US 60/056,364
- <151> 1997-08-19
- <150> US 60/054,804
- <151> 1997-08-05
- <150> US 60/056,370
- <151> 1997-08-19
- <150> US 60/054,803
- <151> 1997-08-05
- <150> US 60/056,731
- <151> 1997-08-19
- <150> US 60/055,311
- <151> 1997-08-05
- <150> US 60/056,365
- <151> 1997-08-19
- <150> US 60/054,808
- <151> 1997-08-05
- <150> US 60/056,367
- <151> 1997-08-19
- <150> US 60/056,726
- <151> 1997-08-19
- <150> US 60/056,368
- <151> 1997-08-19
- <150> US 60/056,728
- <151> 1997-08-19
- <150> US 60/056,628

- <151> 1997-08-19
- <150> US 60/056,629
- <151> 1997-08-19
- <150> US 60/056,270
- <151> 1997-08-29
- <150> US 60/056,271
- <151> 1997-08-29
- <150> US 60/056,247
- <151> 1997-08-29
- <150> US 60/056,073
- <151> 1997-08-29
- <150> US 60/057,669
- <151> 1997-09-05
- <150> US 60/057,663
- <151> 1997-09-05
- <150> US 60/057,626
- <151> 1997-09-05
- <150> US 60/058,666
- <151> 1997-09-12
- <150> US 60/058,973
- <151> 1997-09-12
- <150> US 60/058,974
- <151> 1997-09-12
- <150> US 60/058,667
- <151> 1997-09-12
- <150> US 60/060,837
- <151> 1997-10-02
- <150> US 60/060,862
- <151> 1997-10-02
- <150> US 60/060,839
- <151> 1997-10-02
- <150> US 60/060,866
- <151> 1997-10-02
- <150> US 60/060,843
- <151> 1997-10-02
- <150> US 60/060,836
- <151> 1997-10-02
- <150> US 60/060,838

- <151> 1997-10-02
- <150> US 60/060,874
- <151> 1997-10-02
- <150> US 60/060,833
- <151> 1997-10-02
- <150> US 60/060,884
- <151> 1997-10-02
- <150> US 60/060,880
- <151> 1997-10-02
- <150> US 60/061,463
- <151> 1997-10-09
- <150> US 60/061,529
- <151> 1997-10-09
- <150> US 60/071,498
- <151> 1997-10-09
- <150> US 60/061,527
- <151> 1997-10-09
- <150> US 60/061,536
- <151> 1997-10-09
- <150> US 60/061,532
- <151> 1997-10-09
- <150> US 60/063,099
- <151> 1997-10-24
- <150> US 60/063,088
- <151> 1997-10-24
- <150> US 60/063,100
- <151> 1997-10-24
- <150> US 60/063,387
- <151> 1997-10-24
- <150> US 60/063,148
- <151> 1997-10-24
- <150> US 60/063,386
- <151> 1997-10-24
- <150> US 60/062,784
- <151> 1997-10-24
- <150> US 60/063,091
- <151> 1997-10-24
- <150> US 60/063,090

- <151> 1997-10-24
- <150> US 60/063,089
- <151> 1997-10-24
- <150> US 60/063,092
- <151> 1997-10-24
- <150> US 60/063,111
- <151> 1997-10-24
- <150> US 60/063,101
- <151> 1997-10-24
- <150> US 60/063,109
- <151> 1997-10-24
- <150> US 60/063,110
- <151> 1997-10-24
- <150> US 60/063,098
- <151> 1997-10-24
- <150> US 60/063,097
- <151> 1997-10-24
- <150> US 60/064,911
- <151> 1997-11-07
- <150> US 60/064,912
- <151> 1997-11-07
- <150> US 60/064,983
- <151> 1997-11-07
- <150> US 60/064,900
- <151> 1997-11-07
- <150> US 60/064,988
- <151> 1997-11-07
- <150> US 60/064,987
- <151> 1997-11-07
- <150> US 60/064,908
- <151> 1997-11-07
- <150> US 60/064,984
- <151> 1997-11-07
- <150> US 60/064,985
- <151> 1997-11-07
- <150> US 60/066,094
- <151> 1997-11-17
- <150> US 60/066,100

- <151> 1997-11-17
- <150> US 60/066,089
- <151> 1997-11-17
- <150> US 60/066,095
- <151> 1997-11-17
- <150> US 60/066,090
- <151> 1997-11-17
- <150> US 60/068,006
- <151> 1997-12-18
- <150> US 60/068,057
- <151> 1997-12-18
- <150> US 60/068,007
- <151> 1997-12-18
- <150> US 60/068,008
- <151> 1997-12-18
- <150> US 60/068,054
- <151> 1997-12-18
- <150> US 60/068,064
- <151> 1997-12-18
- <150> US 60/068,053
- <151> 1997-12-18
- <150> US 60/070,923
- <151> 1997-12-18
- <150> US 60/068,365
- <151> 1997-12-19
- <150> US 60/068,169
- <151> 1997-12-19
- <150> US 60/068,367
- <151> 1997-12-19
- <150> US 60/068,369
- <151> 1997-12-19
- <150> US 60/068,368
- <151> 1997-12-19
- <150> US 60/070,657
- <151> 1998-01-07
- <150> US 60/070,692
- <151> 1998-01-07
- <150> US 60/070,704

- <151> 1998-01-07
- <150> US 60/070,658
- <151> 1998-01-07
- <150> US 60/073,160
- <151> 1998-01-30
- <150> US 60/073,159
- <151> 1998-01-30
- <150> US 60/073,165
- <151> 1998-01-30
- <150> US 60/073,164
- <151> 1998-01-30
- <150> US 60/073,167
- <151> 1998-01-30
- <150> US 60/073,162
- <151> 1998-01-30
- <150> US 60/073,161
- <151> 1998-01-30
- <150> US 60/073,170
- <151> 1998-01-30
- <150> US 60/074,141
- <151> 1998-02-09
- <150> US 60/074,341
- <151> 1998-02-09
- <150> US 60/074,037
- <151> 1998-02-09
- <150> US 60/074,157
- <151> 1998-02-09
- <150> US 60/074,118
- <151> 1998-02-09
- <150> US 60/076,051
- <151> 1998-02-26
- <150> US 60/076,053
- <151> 1998-02-26
- <150> US 60/076,054
- <151> 1998-02-26
- <150> US 60/076,052
- <151> 1998-02-26
- <150> US 60/076,057

- <151> 1998-02-26
- <150> US 60/077,714
- <151> 1998-03-12
- <150> US 60/077,687
- <151> 1998-03-12
- <150> US 60/077,686
- <151> 1998-03-12
- <150> US 60/077,696
- <151> 1998-03-12
- <150> US 60/078,566
- <151> 1998-03-19
- <150> US 60/078,574
- <151> 1998-03-19
- <150> US 60/078,576
- <151> 1998-03-19
- <150> US 60/078,579
- <151> 1998-03-19
- <150> US 60/078,563
- <151> 1998-03-19
- <150> US 60/078,573
- <151> 1998-03-19
- <150> US 60/078,578
- <151> 1998-03-19
- <150> US 60/078,581
- <151> 1998-03-19
- <150> US 60/078,577
- <151> 1998-03**-**19
- <150> US 60/080,314
- <151> 1998-04-01
- <150> US 60/080,312
- <151> 1998-04-01
- <150> US 60/080,313
- <151> 1998-04-01
- <150> US 60/085,180
- <151> 1998-05-12
- <150> US 60/085,105
- <151> 1998-05-12
- <150> US 60/085,094

- <151> 1998-05-12
- <150> US 60/085,093
- <151> 1998-05-12
- <150> US 60/085,924
- <151> 1998-05-18
- <150> US 60/085,906
- <151> 1998-05-18
- <150> US 60/085,927
- <151> 1998-05-18
- <150> US 60/085,920
- <151> 1998-05-18
- <150> US 60/085,928
- <151> 1998-05-18
- <150> US 60/085,925
- <151> 1998-05-18
- <150> US 60/085,921
- <151> 1998-05-18
- <150> US 60/085,923
- <151> 1998-05-18
- <150> US 60/085,922
- <151> 1998-05-18
- <150> US 60/090,112
- <151> 1998-06-22
- <150> US 60/089,508
- <151> 1998-06-16
- <150> US 60/089,507
- <151> 1998-06-16
- <150> US 60/089,510
- <151> 1998-06-16
- <150> US 60/089,509
- <151> 1998-06-16
- <150> US 60/090,113
- <151> 1998-06-22
- <150> US 60/092,956
- <151> 1998-07-15
- <150> US 60/092,921
- <151> 1998-07-15
- <150> US 60/092,922

- <151> 1998-07-15
- <150> US 60/094,657
- <151> 1998-07-30
- <150> US 60/095,486
- <151> 1998-08-05
- <150> US 60/096,319
- <151> 1998-08-12
- <150> US 60/095,455
- <151> 1998-08-06
- <150> US 60/095,454
- <151> 1998-08-06
- <150> US 60/097,917
- <151> 1998-08-25
- <150> US 60/098,634
- <151> 1998-08-31
- <150> US 60/101,546
- <151> 1998-09-23
- <150> US 60/102,895
- <151> 1998-10-02
- <150> US 60/108,207
- <151> 1998-11-12
- <150> US 60/113,006
- <151> 1998-12-18
- <150> US 60/112,809
- <151> 1998-12-17
- <150> US 60/116,330
- <151> 1999-01-19
- <150> US 60/119,468
- <151> 1999-02-10
- <150> US 60/125,055
- <151> 1999-03-18
- <150> US 60/128,693
- <151> 1999-04-09
- <150> US 60/130,991
- <151> 1999-04-26
- <150> US 60/137,725
- <151> 1999-06-07
- <150> US 60/145,220

- <151> 1999-07-23
- <150> US 60/149,182
- <151> 1999-08-17
- <150> US 60/152,317
- <151> 1999-09-03
- <150> US 60/152,315
- <151> 1999-09-03
- <150> US 60/155,709
- <151> 1999-09-24
- <150> US 60/163,085
- <151> 1999-11-02
- <150> US 60/172,411
- <151> 1999-12-17
- <150> US 60/162,239
- <151> 1999-10-29
- <150> US 60/215,139
- <151> 2000-06-30
- <150> US 60/162,211
- <151> 1999-10-29
- <150> US 60/215,138
- <151> 2000-06-30
- <150> US 60/162,240
- <151> 1999-10-29
- <150> US 60/215,131
- <151> 2000-06-30
- <150> US 60/162,237
- <151> 1999-10-29
- <150> US 60/219,666
- <151> 2000-07-21
- <150> US 60/162,238
- <151> 1999-10-29 .
- <150> US 60/215,134
- <151> 2000-06-30
- <150> US 60/163,580
- <151> 1999-11-05
- <150> US 60/215,130
- <151> 2000-06-30
- <150> US 60/163,577

- <151> 1999-11-05
- <150> US 60/215,137
- <151> 2000-06-30
- <150> US 60/163,581
- <151> 1999-11-05
- <150> US 60/215,133
- <151> 2000-06-30
- <150> US 60/163,576
- <151> 1999-11-05
- <150> US 60/221,366
- <151> 2000-07-27
- <150> US 60/164,344
- <151> 1999-11-09
- <150> US 60/195,296
- <151> 2000-04-07
- <150> US 60/221,367
- <151> 2000-07-27
- <150> US 60/164,835
- <151> 1999-11-12
- <150> US 60/221,142
- <151> 2000-07-27
- <150> US 60/164,744
- <151> 1999-11-12
- <150> US 60/215,140
- <151> 2000-06-30
- <150> US 60/164,735
- <151> 1999-11-12
- <150> US 60/221,193
- <151> 2000-07-27
- <150> US 60/164,825
- <151> 1999-11-12
- <150> US 60/222,904
- <151> 2000-08-03
- <150> US 60/164,834
- <151> 1999-11-12
- <150> US 60/224,007
- <151> 2000-08-04
- <150> US 60/164,750

- <151> 1999-11-12
- <150> US 60/215,128
- <151> 2000-06-30
- <150> US 60/166,415
- <151> 1999-11-19
- <150> US 60/215,136
- <151> 2000-06-30
- <150> US 60/166,414
- <151> 1999-11-19
- <150> US 60/219,665
- <151> 2000-07-21
- <150> US 60/164,731
- <151> 1999-11-12
- <150> US 60/215,132
- <151> 2000-06-30
- <150> US 60/226,280
- <151> 2000-08-18
- <150> US 60/256,968
- <151> 2000-12-21
- <150> US 60/226,380
- <151> 2000-08-18
- <150> US 60/259,803
- <151> 2001-01-05
- <150> US 60/228,084
- <151> 2000-08-28
- <150> US 09/915,582
- <151> 2001-07-27
- <150> US 60/231,968
- <151> 2000-09-12
- <150> US 60/236,326
- <151> 2000-09-29
- <150> US 60/234,211
- <151> 2000-09-20
- <150> US 60/226,282
- <151> 2000-08-18
- <150> US 60/232,104
- <151> 2000-09-12
- <150> US 60/234,210

- <151> 2000-09-20
- <150> US 60/226,278
- <151> 2000-08-18
- <150> US 60/259,805
- <151> 2001-01-05
- <150> US 60/226,279
- <151> 2000-08-18
- <150> US 60/259,678
- <151> 2001-01-05
- <150> US 60/226,281
- <151> 2000-08-18
- <150> US 60/231,969
- <151> 2000-09-12
- <150> US 60/228,086
- <151> 2000-08-28
- <150> US 60/259,516
- <151> 2001-01-04
- <150> US 60/228,083
- <151> 2000-08-28
- <150> US 60/259,804
- <151> 2001-01-05
- <150> US 60/270,658
- <151> 2001-02-23
- <150> US 60/304,444
- <151> 2001-07-12
- <150> US 60/270,625
- <151> 2001-02-23
- <150> US 60/304,417
- <151> 2001-07-12
- <150> US 60/295,869
- <151> 2001-06-06
- <150> US 60/304,121
- <151> 2001-07-11
- <150> US 60/311,085
- <151> 2001-08-10
- <150> US 60/325,209
- <151> 2001-09-28
- <150> US 60/330,629

- <151> 2001-10-26
- <150> US 60/331,046
- <151> 2001-11-07
- <150> US 60/358,554
- <151> 2002-02-22
- <150> US 60/358,714
- <151> 2002-02-25
- <150> US 60/277,340
- <151> 2001-03-21
- <150> US 60/306,171
- <151> 2001-07-19
- <150> US 60/278,650
- <151> 2001-03-27
- <150> US 60/331,287
- <151> 2001-11-13
- <150> US 09/950,082
- <151> 2001-09-12
- <150> US 09/950,083
- <151> 2001-09-12
- <150> PCT/US00/29363
- <151> 2000-10-25
- <150> PCT/US00/29360
- <151> 2000-10-25
- <150> PCT/US00/29362
- <151> 2000-10-25
- <150> PCT/US00/29365
- <151> 2000-10-25
- <150> PCT/US00/29364
- <151> 2000-10-25
- <150> PCT/US00/30040
- <151> 2000-11-01
- <150> PCT/US00/30037
- <151> 2000-11-01
- <150> PCT/US00/30045
- <151> 2000-11-01
- <150> PCT/US00/30036
- <151> 2000-11-01
- <150> PCT/US00/30039

- <151> 2000-11-01
- <150> PCT/US00/30654
- <151> 2000-11-08
- <150> PCT/US00/30628
- <151> 2000-11-08
- <150> PCT/US00/30653
- <151> 2000-11-08
- <150> PCT/US00/30629
- <151> 2000-11-08
- <150> PCT/US00/30679
- <151> 2000-11-08
- <150> PCT/US00/30674
- <151> 2000-11-08
- <150> PCT/US00/31162
- <151> 2000-11-15
- <150> PCT/US00/31282
- <151> 2000-11-15
- <150> PCT/US00/30657
- <151> 2000-11-08
- <150> PCT/US01/01396
- <151> 2001-01-17
- <150> PCT/US01/01387
- <151> 2001-01-17
- <150> PCT/US01/01567
- <151> 2001-01-17
- <150> PCT/US01/01431
- <151> 2001-01-17
- <150> PCT/US01/01432
- <151> 2001-01-17
- <150> PCT/US01/00544
- <151> 2001-01-09
- <150> PCT/US01/01435
- <151> 2001-01-17
- <150> PCT/US01/01386
- <151> 2001-01-17
- <150> PCT/US01/01565
- <151> 2001-01-17
- <150> PCT/US01/01394

- <151> 2001-01-17
- <150> PCT/US01/01434
- <151> 2001-01-17
- <150> PCT/US01/01397
- <151> 2001-01-17
- <150> PCT/US01/01385
- <151> 2001-01-17
- <150> PCT/US01/01384
- <151> 2001-01-17
- <150> PCT/US01/01383
- <151> 2001-01-17
- <150> PCT/US02/05064
- <151> 2002-02-21
- <150> PCT/US02/05301
- <151> 2002-02-21
- <150> US 09/148,545
- <151> 1998-09-04
- <150> US 09/621,011
- <151> 2000-07-20
- <150> US 09/981,876
- <151> 2001-10-19
- <150> US 09/149,476
- <151> 1998-09-08
- <150> US 09/809,391
- <151> 2001-03-16
- <150> US 09/882,171
- <151> 2001-06-18
- <150> US 60/190,068
- <151> 2000-03-17
- <150> US 09/152,060
- <151> 1998-09-11
- <150> US 09/852,797
- <151> 2001-05-11
- <150> US 09/853,161
- <151> 2001-05-11
- <150> US 09/852,659
- <151> 2001-05-11
- <150> US 10/058,993

- <151> 2002-01-30
- <150> US 60/265,583
- <151> 2001-02-02
- <150> US 09/154,707
- <151> 1998-09-17
- <150> US 09/966,262
- <151> 2001-10-01
- <150> US 09/983,966
- <151> 2001-10-26
- <150> US 10/059,395
- <151> 2002-01-31
- <150> US 09/984,245
- <151> 2001-10-29
- <150> US 09/166,780
- <151> 1998-10-06
- <150> US 09/577,145
- <151> 2000-05-24
- <150> US 09/814,122
- <151> 2001-03-22
- <150> US 09/189,144
- <151> 1998-11-10
- <150> US 09/690,454
- <151> 2000-10-18
- <150> US 10/062,831
- <151> 2002-02-05
- <150> US 10/062,599
- <151> 2002-02-05
- <150> US 09/205,258
- <151> 1998-12-04
- <150> US 09/933,767
- <151> 2001-08-22
- <150> US 60/184,836
- <151> 2000-02-24
- <150> US 60/193,170
- <151> 2000-03-29
- <150> US 10/023,282
- <151> 2001-12-20
- <150> US 10/004,860

- <151> 2001-12-07
- <150> US 09/209,462
- <151> 1998-12-11
- <150> US 09/213,365
- <151> 1998-12-17
- <150> US 09/627,081
- <151> 2000-07-27
- <150> US 09/227,357
- <151> 1999-01-08
- <150> US 09/983,802
- <151> 2001-10-25
- <150> US 09/973,278
- <151> 2001-10-10
- <150> US 60/239,899
- <151> 2000-10-13
- <150> US 09/984,490
- <151> 2001-10-30
- <150> US 09/776,724
- <151> 2001-02-06
- <150> US 09/229,982
- <151> 1999-01-14
- <150> US 09/669,688
- <151> 2000-09-26
- <150> US 60/180,909
- <151> 2000-02-08
- <150> US 09/236,557
- <151> 1999-01-26
- <150> US 09/666,984
- <151> 2000-09-21
- <150> US 09/820,649
- <151> 2001-03-30
- <150> US 60/295,558
- <151> 2001-06-05
- <150> US 09/244,112
- <151> 1999-02-04
- <150> US 09/774,639
- <151> 2001-02-01
- <150> US 09/969,730

- <151> 2001-10-04
- <150> US 60/238,291
- <151> 2000-10-06
- <150> US 09/251,329
- <151> 1999-02-17
- <150> US 09/716,128
- <151> 2000-11-17
- <150> US 09/257,179
- <151> 1999-02-25
- <150> US 09/729,835
- <151> 2000-12-06
- <150> US 09/262,109
- <151> 1999-03-04
- <150> US 09/722,329
- <151> 2000-11-28
- <150> US 10/047,021
- <151> 2002-01-17
- <150> US 60/262,066
- <151> 2001-01-18
- <150> US 09/281,976
- <151> 1999-03-31
- <150> US 09/288,143
- <151> 1999-04-08
- <150> US 09/984,429
- <151> 2001-10-30
- <150> US 60/244,591
- <151> 2000-11-01
- <150> US 09/296,622
- <151> 1999-04-23
- <150> US 09/305,736
- <151> 1999-05-05
- <150> US 09/818,683
- <151> 2001-03-28
- <150> US 09/974,879
- <151> 2001-10-12
- <150> US 60/239,893
- <151> 2000-10-13
- <150> US 09/334,595

- <151> 1999-06-17
- <150> US 09/348,457
- <151> 1999-07-07
- <150> US 09/739,907
- <151> 2000-12-20
- <150> US 09/938,671
- <151> 2001-08-27
- <150> US 09/363,044
- <151> 1999-07-29
- <150> US 09/813,153
- <151> 2001-03-21
- <150> US 09/949,925
- <151> 2001-09-12
- <150> US 60/232,150
- <151> 2000-09-12
- <150> US 09/369,247
- <151> 1999-08-05
- <150> US 10/062,548
- <151> 2002-02-05
- <150> US 09/382,572
- <151> 1999-08-25
- <150> US 09/716,129
- <151> 2000-11-17
- <150> US 09/393,022
- <151> 1999-09-09
- <150> US 09/798,889
- <151> 2001-03-06
- <150> US 09/397,945
- <151> 1999-09-17
- <150> US 09/437,658
- <151> 1999-11-10
- <150> US 09/892,877
- <151> 2001-06-28
- <150> US 09/948,783
- <151> 2001-09-10
- <150> US 60/231,846
- <151> 2000-09-11
- <150> US 09/461,325

- <151> 1999-12-14
- <150> US 10/050,873
- <151> 2002-01-18
- <150> US 60/263,230
- <151> 2001-01-23
- <150> US 60/263,681
- <151> 2001-01-24
- <150> US 10/012,542
- <151> 2001-12-12
- <150> US 09/482,273
- <151> 2000-01-13
- <150> US 60/234,925
- <151> 2000-09-25
- <150> US 09/984,276
- <151> 2001-10-29
- <150> US 09/984,271
- <151> 2001-10-29
- <150> US 09/489,847
- <151> 2000-01-24
- <150> US 60/350,898
- <151> 2002-01-25
- <150> US 09/511,554
- <151> 2000-02-23
- <150> US 09/739,254
- <151> 2000-12-19
- <150> US 09/904,615
- <151> 2001-07-16
- <150> US 10/054,988
- <151> 2002-01-25
- <150> US 09/531,119
- <151> 2000-03-20
- <150> US 09/820,893
- <151> 2001-03-30
- <150> US 09/565,391
- <151> 2000-05-05
- <150> US 09/948,820
- <151> 2001-09-10
- <150> US 09/591,316

- <151> 2000-06-09
- <150> US 09/895,298
- <151> 2001-07-02
- <150> US 09/618,150
- <151> 2000-07-17
- <150> US 09/985,153
- <151> 2001-11-01
- <150> US 09/628,508
- <151> 2000-07-28
- <150> US 09/997,131
- <151> 2001-11-30
- <150> US 09/661,453
- <151> 2000-09-13
- <150> US 10/050,882
- <151> 2002-01-18
- <150> US 09/684,524
- <151> 2000-10-10
- <150> US 10/050,704
- <151> 2002-01-18
- <150> US 09/726,643
- <151> 2000-12-01
- <150> US 10/042,141
- <151> 2002-01-11
- <150> US 09/756,168
- <151> 2001-01-09
- <150> US 09/781,417
- <151> 2001-02-13
- <150> US 10/060,255
- <151> 2002-02-01
- <150> US 09/789,561
- <151> 2001-02-22
- <150> US 09/800,729
- <151> 2001-03-08
- <150> US 09/832,129
- <151> 2001-04-11
- <150> PCT/US98/04482
- <151> 1998-03-06
- <150> PCT/US98/04493

- <151> 1998-03-06
- <150> PCT/US98/04858
- <151> 1998-03-12
- <150> PCT/US98/05311
- <151> 1998-03-19
- <150> PCT/US98/06801
- <151> 1998-04-07
- <150> PCT/US98/10868
- <151> 1998-05-28
- <150> PCT/US98/11422
- <151> 1998-06-04
- <150> PCT/US01/05614
- <151> 2001-02-21
- <150> PCT/US98/12125
- <151> 1998-06-11
- <150> PCT/US98/13608
- <151> 1998-06-30
- <150> PCT/US98/13684
- <151> 1998-07-07
- <150> PCT/US98/14613
- <151> 1998-07-15
- <150> PCT/US98/15949
- <151> 1998-07-29
- <150> PCT/US98/16235
- <151> 1998-08-04
- <150> PCT/US98/17044
- <151> 1998-08-18
- <150> PCT/US98/17709
- <151> 1998-08-27
- <150> PCT/US98/18360
- <151> 1998-09-03
- <150> PCT/US02/01109
- <151> 2002-01-17
- <150> PCT/US98/20775
- <151> 1998-10-01
- <150> PCT/US98/21142
- <151> 1998-10-08
- <150> PCT/US98/22376

- <151> 1998-10-23
- <150> PCT/US98/23435
- <151> 1998-11-04
- <150> PCT/US98/27059
- <151> 1998-12-17
- <150> PCT/US99/00108
- <151> 1999-01-06
- <150> PCT/US99/01621
- <151> 1999-01-27
- <150> PCT/US99/02293
- <151> 1999-02-04
- <150> PCT/US99/03939
- <151> 1999-02-24
- <150> PCT/US99/05721
- <151> 1999-03-11
- <150> PCT/US99/05804
- <151> 1999-03-18
- <150> PCT/US99/09847
- <151> 1999-05-06
- <150> PCT/US99/13418
- <151> 1999-06-15
- <150> PCT/US99/15849
- <151> 1999-07-14
- <150> PCT/US01/00911
- <151> 2001-01-12
- <150> PCT/US01/29871
- <151> 2001-09-24
- <150> PCT/US99/17130
- <151> 1999-07-29
- <150> PCT/US99/19330
- <151> 1999-08-24
- <150> PCT/US99/22012
- <151> 1999-09-22
- <150> PCT/US99/26409
- <151> 1999-11-09
- <150> PCT/US99/29950
- <151> 1999-12-16
- <150> PCT/US00/00903

<151> 2000-01-18 <150> PCT/US00/03062 <151> 2000-02-08 <150> PCT/US00/06783 <151> 2000-03-16 <150> PCT/US00/08979 <151> 2000-04-06 <150> PCT/US00/15187 <151> 2000-06-02 <150> PCT/US00/19735 <151> 2000-07-20 <150> PCT/US00/22325 <151> 2000-08-16 <150> PCT/US00/24008 <151> 2000-08-31 <150> PCT/US00/26013 <151> 2000-09-22 <150> PCT/US00/28664 <151> 2000-10-17 <150> US 09/833,245 <151> 2001-04-12 <150> PCT/US01/11988 <151> 2001-04-12 <150> US 10/100,683 <151> 2002-03-19 <150> PCT/US02/09785 <151> 2002-03-19 <160> 1136 <170> PatentIn Ver. 2.0 <210> 1 <211> 733 <212> DNA <213> Homo sapiens <400> 1 gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60 aattcgaggg tgcaccgtca gtcttcctct tcccccaaa acccaaggac accctcatga 120 180 tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg 240 tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg

300 360

aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg accaggact

ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg

```
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                       420
                                                                       480
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
                                                                      540
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                       600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                       660
                                                                     720
acaaccacta cacgcagaag agcctctccc tgtctccggg taaatggtg cgacggccgc
                                                                       733
gactctagag gat
<210> 2
<211> 5
<212> PRT
<213> Homo sapiens
<220>
<221> Site
<222> (3)
<223> Xaa equals any of the twenty naturally ocurring Lamino acids
<400> 2
Trp Ser Xaa Trp Ser
  1
<210> 3
<211> 86
<212> DNA
<213> Artificial Sequence
<220>
<221> Primer Bind
<223> Synthetic sequence with 4 tandem copies of the GAS binding site
      found in the IRF1 promoter (Rothman et al., Immunity 1:457-468
      (1994)), 18 nucleotides complementary to the SV40 early promoter,
      and a Xho I restriction site.
                                                                        60
qcqcctcqaq atttccccqa aatctagatt tccccgaaat gatttccccg aaatgatttc
                                                                       86
cccqaaatat ctqccatctc aattag
<210> 4
<211> 27
<212> DNA
<213> Artificial Sequence
<220>
<221> Primer Bind
<223> Synthetic sequence complementary to the SV40 promoter; includes a
      Hind III restriction site.
<400> 4
                                                                        27
gcggcaagct ttttgcaaag cctaggc
<210> 5
<211> 271
<212> DNA
<213> Artificial Sequence
<220>
```

```
<221> Protein Bind
<223> Synthetic promoter for use in biological assays; includes GAS
      binding sites found in the IRF1 promoter (Rothman et al., Immunity
      1:457-468 (1994)).
<400> 5
ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
                                                                       60
aaatatctgc catctcaatt agtcagcaac catagtcccg cccctaactc cgcccatccc
                                                                      120
gcccctaact ccgcccagtt ccgcccattc tccgcccat ggctgactaa tttttttat
                                                                      180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
                                                                      240
ttttggaggc ctaggctttt gcaaaaagct t
                                                                      271
<210> 6
<211> 32
<212> DNA
<213> Artificial Sequence
<220>
<221> Primer Bind
<223> Synthetic primer complementary to human genomic EGR1 promoter
      sequence (Sakamoto et al., Oncogene 6:867871 (1991)); includes a
      Xho I restriction site.
<400> 6
                                                                      32
gcgctcgagg gatgacagcg atagaacccc gg
<210> 7
<211> 31
<212> DNA
<213> Artificial Sequence
<220>
<221> Primer Bind
<223> Synthetic primer complementary to human genomic EGR1 promoter
      sequence (Sakamoto et al., Oncogene 6:867871 (1991)); includes a
      Hind III restriction site.
<400> 7
gcgaagcttc gcgactcccc ggatccgcct c
                                                                        31
<210> 8
<211> 12
<212> DNA
<213> Homo sapiens
<400> 8
                                                                       12
ggggactttc cc
<210> 9
<211> 73
<212> DNA
<213> Artificial Sequence
<220>
<221> Primer Bind
<223> Synthetic primer with 4 tandem copies of the NFKB binding site
      (GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the
```

SV40 early promoter sequence, and a XhoI restriction site.

```
<400> 9
qcqqcctcqa qqqqactttc ccqqqqactt tccqqqqact ttccqqqqact ttccatcctq
                                                                       60
ccatctcaat tag
                                                                       73
<210> 10
<211> 256
<212> DNA
<213> Artificial Sequence
<220>
<221> Protein Bind
<223> Synthetic promoter for use in biological assays; includes NHKB
     binding sites.
<400> 10
                                                                       60
ctcgagggga ctttccggg gactttccg ggactttcca tctgccatct
caattagtca gcaaccatag tecegeeet aacteegeee ateeegeee taacteegee
                                                                     120
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga
                                                                      180
                                                                      240
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg
                                                                      256
cttttgcaaa aagctt
<210> 11
<211> 2703
<212> DNA
<213> Homo sapiens
<400> 11
                                                                       60
ggcacgagat ttcctacagg tgaaacgcca tcattaggat tcactgtaac gttagtgcta
                                                                      120
ttaaactcac tagcattttt attaatggcc gttatctaca ctaagctata ctgcaacttg
qaaaaaqaqq acctctcaqa aaactcacaa tctaqcatqa ttaaqcaqt cgcttgqcta
                                                                     180
atottcacca attgcatctt tttctgccct gtggcgtttt tttcatttgc accattgatc
                                                                      240
                                                                      300
actgcaatct ctatcagccc cgaaataatg aagtctgtta ctctgatatt ttttccattg
                                                                      360
cctgcttgcc tqaatccagt cctgtatgtt ttcttcaacc caaagtttaa agaagactgg
aagttactga agcgacgtgt taccaagaaa agtggatcag tttcagtttc catcagtagc
                                                                      420
caaggtggtt gtctggaaca ggatttctac tacgactgtg gcatgtactc acatttgcag
                                                                      480
ggcaacctga ctgtttgcga ctgctgcgaa tcgtttcttt taacaaagcc agtatcatgc
                                                                      540
aaacacttqa taaaatcaca cagctqtcct gcattggcag tgcttcttg ccaaagacct
                                                                     600
gagggctact ggtccgactg tggcacacag tcggcccact ctgattatgc agatgaagaa
                                                                      660
                                                                      720
gattcctttg tctcagacag ttctgaccag gtgcaggcct gtggacgagc ctgcttctac
                                                                      780
cagagtagag gattcccttt ggtgcgctat gcttacaatc taccaagagt taaagactga
actactgtgt gtgtaaccgt ttcccccgtc aaccaaaatc agtgtttata gagtgaaccc
                                                                      840
                                                                      900
tatteteate titeatetgg gaageaette tgtaateaet geetggtgte aettagaaga
                                                                      960
aggagaggtg gcagtttatt tctcaaacca gtcattttca aagaacaggt gcctaaatta
taaattggtg aaaaatgcaa tgtccaagca atgtatgatc tgtttgaaac aaatatatga
                                                                    1020
                                                                     1080
cttgaaaagg atcttaggtg tagtagagca atataatgtt agttttttct gatccataag
                                                                     1140
aagcaaattt atacctattt gtgtattaag cacaagataa agaacagctg ttaatatttt
                                                                     1200
ttaaaaatct attttaaaat gtgattttct ataactgaag aaaatatctt gctaatttta
cctaatgttt catccttaat ctcaggacaa cttactgcag ggccaaaaaa gggactgtcc
                                                                     1260
                                                                     1320
cagctagaac tgtgagagta tacataggca ttactttatt atgttttcac ttgccatcct
tgacataaga gaactataaa ttttgtttaa gcaatttata aatctaaaac ctgaagatgt
                                                                     1380
ttttaaaaaca atattaacag ctgttaggttaaaaaaatag ctggacattt gttttcagtc
                                                                    1440
                                                                     1500
attatacatt gctttggtcc aatcagtaat tttttcttaa gtgttttgtg attacactac
tagaaaaaaa gtaaaaggct aattgctgtg tgggtttagt cgatttggct aaactactaa
                                                                     1560
ctaatgtggg ggtttaatag tatctgaggg atttggtggc ttcatgtaat gttctcatta
                                                                   1620
atgaatactt cctaatatcg ttggctctac taatattttc caatttgctg ggatgtcacc
                                                                     1680
```

```
tagcaatagc ttggattata tagaaagtaa actgtggtca atacttgcat ttaattagac
                                                                   1740
gaaacgggga gtaattatga cacgaagtac ttatgtttat ttcttagtga gctggattat
                                                                   1800
cttgaacctg tgctattaaa tggaætttc catacatctt ccccatacta ttttttataa
                                                                  1860
aagagcctat tcaatagctc agaggttgaa ctctggttaa acaagataat atgttattaa
                                                                   1920
taaaaataga agaagaaaga ataaagctta gtcctgtgtc tttaaaaatt aaaaatttta
                                                                   1980
cttgattccc atctatgggc tttagaccta ttactgggtg gagtcttaaa gttatmattg
                                                                  2040
ttcaatatgt tttttgaaca gtgtgctaaa tcaatagcaa acccactgcc atattagtta
                                                                   2100
ttctqaatat actaaaaaaa tccagctaga ttgcagttta ataattaaac tgtacatact
                                                                   2160
gtqcatataa tgaattttta tcttatgtaa attattttta gaacacaagt tgggaaatgt
                                                                   2220
ggcttctgtt catttcgttt aattaaagct acctcctaaa ctatagtggc tgccagtagc
                                                                  2280
agactgttaa attgtggttt atatactttt tgcattgtaa atagtctttg ttgtacattg
                                                                   2340
tcagtgtaat aaaaacagaa tctttgtata tcaaaatcat gtagtttgta taaaatgtgg
                                                                   2400
gaaggattta tttacagtgt gttgtaattt tgtaaggcca actatttacaagttttaaaa
                                                                  2460
                                                                   2520
attgctatca tgtatattta cacatctgat aaatattaaa tcataacttg gtaagaaact
                                                                   2580
cctaattaaa aggtttttc caaaattcag gttattgaaa atttttcatt ttattcattt
                                                                   2640
aaaaactaga ataacagata tataaaagtg ttaatctttg tgctatatgg tatgaaatac
2700
                                                                   2703
<210> 12
<211> 459
<212> DNA
<213> Homo sapiens
<400> 12
ggcacqagga agcgtgaacc ccagggaaca gcgggtccct tccctcctca gaacaagcc
                                                                    60
acctcagctt gtggctcttg gcccccagcc ccaccaaccc acctgttcat ttattcaaca
                                                                    120
                                                                    180
gacaatgaca gctgatattt attggacatt tgcaccatgc caagcattcg gcttggatta
                                                                    240
teccatttgt tteteacage eggtatttat tgtetgetee tetgtgecag gtgetgtget
                                                                    300
ctgggcaggg gcactcatg ggctgcctgc cctggtggag cttgtggtct gatgggtgag
gctgacccaa gcccacccca ttgccaacag ggccagggca agagtacaca caggggcctc
                                                                    360
ataccatatg tctaaatatt taaaaagtta tcaatcaagc taacaactgt taaataaaat
                                                                    420
atgttctatt ctcctacttt gaaaaaaaaa aaaaaaaaa
                                                                   459
<210> 13
<211> 760
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (13)..(13)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (300)..(300)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (425)..(425)
<223> n equals a,t,g, or c
<400> 13
                                                                     60
cggacgcgtg ggncggacgc gtggggaaaa aataacaaaa caaaaaacaa gaaaaaaaaa
                                                                    120
acacaaaacc ccgtaaaatc acaaagaaaa tccaacacca aaggcgcaga agccggctgg
```

```
ccgtggtggg ggcagcgtag gcgtasatcc ctctcctctc actagcctg ttgactcttg
                                                                   180
                                                                    240
ttattatcat gatattcaca aaacgccgca tgtttaaaaa gtcatagatg tcatcttctc
tctgccccca gggaggaaag ccaccttctc ttgccccttg gcccctttgt caggggccan
                                                                    300
gggtctgccg ggtgggggtg ccaacaggcc tggccctttc ctcccctgca tccagccatg
                                                                    360
                                                                    420
ggggcctctg cgattgccgg aaggttgcat ggctggtccc agggccagca caggcccgag
                                                                    480
gccgngctgc ctggttttat ttttatttaa ctttatttc tgttttatga gtgtgtgtcc
gcccacccc accccttca gtgttaagtg gggagccctg ggggagtctc tcctgcctcc
                                                                    540
cagcetetee caagacetee eccetegtea ceageetee etetggacea ggeagaggge
                                                                   600
ggaccgggtg ggcaggggcc tgagggtggc tcgggccagc ccaccagcca atggacccct
                                                                    660
cctcaggccg ccagtgtcgc cctgcccctt tttaaaaacaa aatgccctcg tttgtaaacc
                                                                    720
                                                                    760
cttagacgct tgagaataaa ccccttcctt ttcttccaaa
<210> 14
<211> 1445
<212> DNA
<213> Homo sapiens
<400> 14
                                                                     60
ggcacgaggg atttgaacaa gatcattaga attcaaaaaa caccagaaat gaaagatctt
tcctgaagct gtttaggaat attcatgata tacccttaac tgttctagag aacaaaatgc
                                                                    120
gtctgtgctc cttcacaaaa gtccctatga atttgtttt caatgtgatc cttcttaagt
                                                                   180
tctataactt tttgttttca ttaattttag gaaaatcctg ccttgcttcg ttgggcctat
                                                                    240
                                                                    300
gcaagaacaa taaatgtcta tcctaatttc agacccactc ctaaaaactc actcatggga
gctctgtgtg gatttgggcc cctcatcttc atttattata ttatcaaaac tgagagggta
                                                                    360
                                                                    420
agtattcaga ccagatgttt agtatttgag tgataggttc actttctagg gaccagctgc
                                                                     480
agctccttct cttgaagatt gccaccagtg cccctcccac cttggggctg tcctctgcct
                                                                     540
tcccttcctc tcttcttta tctttattcc tttccagcag gagttaaaac agaaagtttt
cagtcacctt tgtctatttt tgttagttca ttgtttttt aaaaagatga tgtttattgg
                                                                    600
                                                                     660
gttaagtatt agcagaatac ataaatcatt tagtacgttt cctgtttgcg tgaattctat
ttatgttggt cacattttgc aaattaatgt taaaacctat taatactcta cgggacagag
                                                                     720
                                                                   780
aagcacaagc tgcctgtgtg gggaatagct gccgtcagca gcctgggtat atgattggag
agaaagtcaa gctgatcttt ggcaccaaac cattccacat ctggtactaa accctgagct
                                                                     840
                                                                     900
gcagccccca ggcttgtgtt gccactggag cccactcgtc tagctttgtc tttaactggc
ccatctgcat tcccattaga gttcgtgtat tttgattatc tggtgaatga tctacttaac
                                                                     960
                                                                   1020
agaaaggtag tccacatttt cccagaægt gtttgcattt tgctttcaat atatggtttt
atgggataat atatttctaa tgactaaaat gtgagtaaga tgtttttgaa taggagcatt
                                                                   1080
ttcttactgt gtctttagtt cctcggatta ctgtttcttc gcacactccc tgggctttag
                                                                   1140
                                                                  1200
acagtgggat tgcaattagg tttggagtgt ttcattctgt ttgtcagttg tacggtggt
tgtgccaaaa tgcagttttt cttacctttt ttatttattt attttatct aatatagcca
                                                                    1260
actggcagaa tatattgtct ttaatgtact ttttttctgt ctttacagga taggaaagaa
                                                                    1320
aaacttatcc aggaaggaaa attggatcga acatttcacc tctcatatta agtctggcaa
                                                                   1380
1440
                                                                    1445
aaaaa
<210> 15
<211> 1333
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (411)..(411)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1264)..(1264)
```

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1319)..(1319)
<223> n equals a,t,g, or c
<400> 15
cctqgaacac ttcaacaacc agtatccagc cgcagagqtg gtgaactttg gcacctggtt
                                                                     60
cctcttcagc ttccccatat ccctcatcat gctggtggtc agctggttct ggatgcactg
                                                                    120
gctqttcctq ggctgcaatt ttaaaqaqac ctqctctctq aqcaaqaaqa aqaaqaccaa
                                                                    180
aagggaacag ttgtcagaga agagsmtcca agaagaatat gaaaaactgg gagacattag
                                                                    240
ctacccagaa atggtgactg gwtttttctt catcctgatg æcgtactgt ggtttamccg
                                                                    300
                                                                    360
ggagcctggc tttgtccctg gctgggattc tttctttgaa aagaaaggct accgtactga
                                                                    420
tgccacagtc tctgtcttcc ttggcttcct cctcttcctc attccagcga nagaagccct
                                                                    480
gctttgggaa aaagaatgat ggagagaacc aggagcactc actkgggacc gagcccatca
tcacgtggaa ggacttccag aagaccatgc cctgggagat tgtcattctg gttgggggag
                                                                    540
gctatgctct ggcttctggt agcaagagct ctggcctctc tacatggatt gggaaccaga
                                                                    600
tgttgtccct gagcagcctc ccaccgtggg ctgtcaccct gctggcatgc atcctcgtgt
                                                                    660
ccattgtcac tgagtttgtg agcaacccag caaccacac catcttcctg cccatcctgt
                                                                    720
                                                                    780
gcagcctgtc tgaaacqctg cacattaacc ccctctacac cctgatccca gtcaccatgt
                                                                    840
gcatctcctt tgcagtgatg ctgcctgtgg gcaatccccc taatgccatc gtcttcagct
                                                                    900
atgggcactg ccagatcaaa gatatggtga aagctggcct gggagtcaac gttattggac
tggtgatagt aatggtggcc atcaacacct ggggagttag cctcttccac ctggacactt
                                                                    960
                                                                   1020
acccagcatg ggcgagggtc agcaacatca ctgatcaagc ctaacgccaa gtgtacaaac
tggcccaacc acaggagctg ccagtatcca gcagtatctg gaccacaggc aaagaaaacc
                                                                   1080
actaggacca ccaggagcac acaaccccag acccacgccg gagggcatcc ctccaccaga
                                                                   1140
                                                                   1200
agattccgcc acctcaagtg aactgcagga atcctccaac aaccacaaac acatgcttcg
                                                                   1260
ctgttagtgt cttcttcctg ccctcagcac cacagctcaa gaaaacctaa agtttcaata
1320
aaaaaaaaa aaa
                                                                   1333
<210> 16
<211> 1382
<212> DNA
<213> Homo sapiens
<400> 16
acqagtqcqq qcaqcaqcaq ccccqqcacq mqqqaqaqaq acaaaqcatq qaqqacacaa
                                                                     60
caatgggagg aaaggcggac tctcaggaac tcattcttc acgtggttta tggtgattgc
                                                                    120
attgctgggc gtctggacat ctgtacctgt cgtttggttt gatcttgttg ttgatgagca
                                                                    180
gattactagc caaagcaaag gacttccgtt ataacttatc agaggtgctt caaggaaaac
                                                                    240
                                                                   300
taggaatcta tgatgctgat ggtgatggag attttgatgt ggatgatgcc aaagttttat
taggcctgac caaagatggc agtaatgaaa atattgattc tcttgaggaa gtccttaata
                                                                    360
ttttagcaga ggaaagttca gattggtttt atggtttcct ctcatttctc tatgatataa
                                                                    420
tgactccttt tgaaatgcta gaagaagaag aagaagaaag cgaaaccgca gatggtgttg
                                                                    480
atggtacgtc acagaatgaa ggggttcagg gaaagacttg tgtcatattg gatttacata
                                                                    540
                                                                    600
accagtaacc ttgattcagg gactgaagtc attggctaat gaacacctga agcagcctcc
                                                                    660
tttttctttt ctttccttgg cttatgcagg gcttaatgtg cagtggggtg gttgtgatct
taccgtgcaa gtcaaccatg tgatcttgcc cagtacagct actagcctag tcccttgtc
                                                                   720
gctcagctcc cccaacttct attgaagaaa atggtactcc tcattcttgt agtcagctac
                                                                    780
aaagtacact gaaaatgatg ttcttggtgg tataattggt ttctgtatcg ttttgtttca
                                                                    840
actcatgtat tcactgaact aaatttggac acttaacagc aaattgtgtt gtggttaacc
                                                                    900
cttgatgctt gtctttctaa cacactatta attatgatga ttctaatgga tttcattata
                                                                    960
                                                                   1020
aaaatatttc tggcatgatt tttaagttaa atgcttctct gttctttaac atgactgatg
                                                                   1080
tataaaatga tggttctttt actaagctga tattttttat tgtaatttgt ttaggtttgt
cagataggtt catacaaaat taaaagtaaa attctgtgtt aatggtgctt taaaataat
                                                                  1140
```

```
ttaaaaataa ctccatgttt ttgccttaga gtaagttaac ttactgtttt cagatagtag
                                                                     1260
catqacatat ttctqtctqt gaaagcaaaa tttattttaa attttatttc caaatataca
                                                                     1320
tccaqaqaaa qtaatttgta tttttttaa agtaggcata ttacacaaga gggaacatgt
                                                                     1380
gaatatgtat cttaatgttg tacataggga aattattcat cctaaaaaaa aaaaaaaaa
                                                                     1382
aa
<210> 17
<211> 1734
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1714)..(1714)
<223> n equals a,t,g, or c
<221> misc feature
<222> (1719)..(1719)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1723)..(1723)
<223> n equals a,t,g, or c
<400> 17
                                                                       60
gcgggagttc ctccttgctc tcgcccctac tctttctggt gttagatcga gcwaccctct
aaaagcagtt tagagtggta aaaaaaaaaa aaaacacacc aaacgctcgc agccacaaaa
                                                                      120
gggatgaaat ttcttctgga catcctcctg cttctcccgt tactgatcgt ctgctcccta
                                                                      180
gagtccttcg tgaagctttt tattcctaag aggagaaaat cagtcaccgg cgaaatcgtg
                                                                      240
                                                                      300
ctgattacag gagctgggca tggaattggg agætgactg cctatgaatt tgctaaactt
aaaagcaagc tggttctctg ggatataaat aagcatggac tggaggaaac agctgccaaa
                                                                      360
                                                                      420
tgcaagggac tgggtgccaa ggttcatacc tttgtggtag actgcagcaa ccgagaagat
                                                                      840
atttacagct ctgcaaagaa ggtgaaggca gaaattggag atgttagtat tttagtaaat
                                                                       540
aatgctggtg tagtctatac atcagatttg tttgctacac aagatcctca gattgaaaag
acttttgaag ttaatgtact tgcacatttc tggactacaa aggcatttct tcctgcaatg
                                                                       600
acgaagaata accatggcca tattgtcact gtggcttcgg cagctggaca tgtctcggtc
                                                                       660
cccttcttac tggcttactg ttcaagcæg tttgctgctg ttggatttca taaaactttg
                                                                      720
acagatgaac tggctgcctt acaaataact ggagtcaaaa caacatgtct gtgtcctaat
                                                                      780
ttcgtaaaca ctggcttcat caaaaatcca agtacaagtt tgggacccac tctggaacct
                                                                      840
qaqqaaqtgg taaacaggct gatgcatggg attctgactg agcagaagat gatttttat
                                                                     900
ccatcttcta tagctttttt aacaacattg gaaaggatcc ttcctgagcg tttcctggca
                                                                       960
qttttaaaac gaaaaatcag tgttaagttt gatgcagtta ttggatataa aatgaaagcg
                                                                     1020
                                                                     1080
caataagcac ctagttttct gaaaactgat ttaccaggtt taggttgatg tcatctaata
                                                                     1140
gtgccagaat tttaatgttt gæcttctgt tttttctaat tatccccatt tcttcaatat
catttttgag gctttggcag tcttcattta ctaccacttg ttctttagcc aaaagctgat
                                                                     1200
tacatatgat ataaacagag aaataccttt agaggtgact ttaaggaaaa tgaagaaaaa
                                                                      1260
gaaccaaaat gactttatta aaataatttc caagattatt tgtggctcac ctagaggctt
                                                                    1320
                                                                     1380
tgcaaaattt gtaccataac cgtttattta acatatattt ttatttttga ttgcacttaa
attttgtata atttgtgttt ctttttctgt tctacataaa atcagaaact tcaagctctc
                                                                      1440
                                                                      1500
taaataaaat gaaggactat atctagtggt atttcacaat gaatatcatg aactctcaat
                                                                     1560
gggtaggttt catcctæcc attgccactc tgtttcctga gagatacctc acattccaat
                                                                     1620
gccaaacatt tctgcacagg gaagctagag gtggatacac gtgttgcaag tataaaagca
                                                                     1680
tcactgggat ttaaggagaa ttgagagaat gtacccacaa atggcagcaa taataaatgg
                                                                    1734
atcacactta aaaaaaaaa aagggggggc cgcnctggng ggnccaagt ttcg
```

1200

```
<210> 18
<211> 751
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<400> 18
natcattttc tgtcccctcc tatcttaggc tgaccggttc cctgatgtgt tacctgcttc
                                                                    60
tqctactgat ccaaactgca gaacttctca ttcatcccca aggcctccag gcagtatcca
                                                                  120
atggggaatc agctctaaaa ggaaccagac caacgttttc cagccccttc attctggtga
                                                                   180
                                                                   240
ctgaggggag gaaagaatgg gagggggtat tcttgtctag tggatggaaa ggaaacacac
                                                                  300
tgtcaaatta ctatatctcc ttggttttct attacagtag aattctccagccatattttt
                                                                   360
attgtctatg ggggaagttg gagatggtga ccttgattag aagtgtctgg agggggataa
                                                                   420
atggagggga taagattcag ttggttttgg aaaatgttaa agtcttaaaa taatgcgtcc
atctgaagaa ttttttctaa aaccagagtt tataaaaaata tcactgatac agcctgcccc
                                                                   480
ctcatttccc tgccacagga gatgtcttgg actagagaca cttgtttaat aatagcttgt
                                                                  540
                                                                   600
ctctgatatt cccagtagct tccctctgtg tgaggaaagg atagaaatgt tcaggacatc
                                                                   660
atcatacagg ctcctcatct acaaagttcc agtagcagtg acgcctacac ggaagacttg
                                                                  720
gaactgcaaa caggctgggg tcacctcagt gacatctgac gctgtcaac cagaagttcg
                                                                   751
atttttgttc tgggggtgaa ggaggaaaca g
<210> 19
<211> 1313
<212> DNA
<213> Homo sapiens
<400> 19
ctgcaggaat tcggcacgag gtcttgctgt gttgctaatg ttgaactcct ggccctaagt
                                                                    60
gatectectg cettæctgg gattacagge atgeacettg tgteteacta atagatttge
                                                                  120
                                                                  180
tttctaggtc tttcctgtca ggtccaccaa tattttagat ggatggagca cttgattaga
                                                                   240
tcaggagtca aaattctatt cctgaatcta ttacttacca gttgtactac tttgaatgaa
tggcttaatt ttttagtgac tttgaattgt tccagatata aaatgaagg ataggtctag
                                                                  300
agagttgcct tagatgaatt aggaaacagt ttctgagata gagatgttag tgcagtaggt
                                                                   360
ttattgggga gtgttctcag gaatgcctgt ggggaagtga aggatgtgga ggaggaagat
                                                                   420
ggactggaat tcatttgcca gagtcctcag cagatcctac cagcwctaga gctgggatgg
                                                                   480
cccttcagag ttatcctgat ccacaagggg tcagccccta ggcattcata agtcactttg
                                                                  540
                                                                   600
tecagteatt ggggttgace ceaggaaaag gtatggtttg gggtaagagg actetteagt
                                                                   660
tgagggtagt tcctaggaag ctagtgagct atgagttggc atcaggcaac atttccagca
atttggtcaa tgagttcccc ttaaggctgg atctgggccacggaccatgg cactcactgc
                                                                  720
                                                                   780
catattcaca gcgtcgtttt cagtgtgaaa ttctactgtg ttaaagtatt gtacagtcac
tgaaatgaga gtatttttat atttggctac ccatgacatt tattctcttc tgattatatt
                                                                   840
                                                                   900
960
ttttctgtct gttgaggaaa aagagtttta ttcttctagt atgagagttt ctattagtcc
                                                                  1020
tcctttttag acagatgaac accctgtgac aattcctttt gtctttttgt ggcgtgtaaa
aaaaaagaaa tccataaata gagtcgttac gcaagtcttc atgagttaat ttctctctcc
                                                                  1080
                                                                 1140
agttttctta ctactttttc cagttttcat tttctcaac agaaagcttc ttcttctggc
                                                                  1200
tggacacagc gctcacgcct gtagtcccag cactttggaa ggctgagggg gatgtaatcc
cagcactttg gaaggctgaa ctcctgagtt caggagttcc agaccagcct gggcaacatg
                                                                  1260
                                                                  1313
<210> 20
<211> 752
<212> DNA
```

## <213> Homo sapiens

<222> (2211)..(2211)

```
<400> 20
                                                                     60
actgaacagt ggttaatcct gactctgttt ttgactgaca gttaacagtt acatgaacca
                                                                    120
ttcatattac agctcttact taaatttgac caagccagga tatatctgtt aggccacatt
catttaggga tcatgttttc caaagcaggt ttgggcaaa ttaatccaca ggactgaaag
                                                                   180
                                                                    240
gtatacatct gtgagttttg ttctcacttc cacctctaat ttgaagaaca ctttaattga
cacagaatac atttcacata tttaacctct acaataagtt ctgacacatt ttccatgaaa
                                                                    300
caaaccatcg ctatattcaa gataatgaac ctatctatca tactcccaaa ttccttctkg
                                                                    360
                                                                    420
480
tgctcaggca actaccaatc ttctttctgt cactatagat taatttgcat ttttaaagaa
atttacatac atggaaccat acatcatcta tgctttgtag tatgactcct gtcactcagt
                                                                    540
acaattattt tgagattcat ttatgttawt datgtatca atagttcatc ccttttattg
                                                                    600
                                                                    660
gtaagtaaca tttttttgta taggtatacc atgatttgtt gatgaacaaa tttacctgtt
                                                                    720
gatgaacatt tacgttgtta ccaagatttt tgctattgaa aataaagttt ttatgaatat
                                                                   752
ttatatata aaaaaaaaa aaaaaaactc ga
<210> 21
<211> 879
<212> DNA
<213> Homo sapiens
<400> 21
                                                                     60
gctgcatgct gggcgggaac taggaagcct ccccaacctc tggccccgtg gagccctcag
cctcagctgc agtggaggca cctcgggctc tggggcaacc aagtgtgaca ggtggctgtg
                                                                    120
                                                                   180
cacqqqcaga qqtcctqtqq aaqatttcat gtqxcqgqca gaaqagqagg aggaggcagg
                                                                    240
ggaggaagca catccatgaa cagggctgtc tgggggcagc ctgggtggtc gtgaaatagg
                                                                    300
actcagtggc cttgagtcct catttaggcc ctgatgttct ttagcctgcc tggcctttgg
                                                                    ണ
caaatcgcca gcttcacgca caacctcatt tttcaccttt gggtgtgggg gtcagagtcg
                                                                    420
ggagagcacc tgcaaagcca caatgatcca gacacacggc aaggtgggca cattcccatc
                                                                    480
aggeteeteg gggagageag egettetgtg eeegggagea gegaaggtea eacaggagga
cccgcacctc ctcgtgtcgg tggctccgct ggtataatca ggactcacgt ggtgttcctc
                                                                    540
gtgtcgtggc ccttattgca gagggag@g cacaggcttt cctggaagct cccctcggtc
                                                                    600
atgtggggtg actccagaga rccccacctt gcgagactgg accagtccaa gtggcctkga
                                                                    660
                                                                    720
gccacarcgg cctkgcagta cctkgggagg gggtgatgac aggtgcacac ggaggcccat
                                                                   780
qtqqtctqtc tqqaqaatqc cqqaqatqtq aaatatqtaa tcctqaqtqt gqcttctaa
                                                                    840
aggaaggttc gcaaagctga atatccactc gtgctgttcc cttctcacag gagattcctg
                                                                    879
tcaacgtccg attctgcctc gaaggcagga ggagtaagg
<210> 22
<211> 2761
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1006)..(1006)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1376)..(1376)
<223> n equals a,t,g, or c
<220>
<221> misc feature
```

```
<400> 22
                                                                    60
gattaaaatt tatttaataa taaggggagg aataaaataa ctatgettt ttttgttgaa
                                                                    120
agcacaattg tgtctgatac tttaattaca ctatctaatt taacctttca taaatgccca
                                                                    180
gaatatgaga atatcatcca agatttaaat accaattacc aaaatttaca gctatcaaat
                                                                    240
ggaagactca ggtttatgct atgccacgtt ttctcttctt tcctttttgt gatggtgttc
caaattgtgg agaaagaaaa cattctattt gtgattgctt ctgctagtta cttctgcaaa
                                                                    300
acaaactact caaattcagt ggtgtgatgc aataaccatt tgtcatcctc atatattctg
                                                                    360
                                                                    420
gggtcagggg tcaaaaatgc aaagtggggt gacatctcgt ggtctacagt aattggggcc
                                                                    480
tctqaqaatt cctaqctatc taggaatgaa ttaaacgttggacaatgaag ttttctgaaa
                                                                    540
gcttctttac gtttggctcc tgcatkggta tgacttaaag gctgcgctca aaataatctc
ttaaccagag kgtctgaata ttgcttcttc atgtaacttg agcttcctca caacatggaa
                                                                    600
                                                                    660
tcatacaggt agcttgcctg agtgttgcag ttaatgggtc aatgtattgc ctttaataat
                                                                    720
cttgcctcag aagtcacata gaattacttt aatgctgagt tggtttaagc aatcacagcc
                                                                    780
tgtctgactt cagggggaag aaacatgatg tctacccttt gatgtgagga cattcaaagt
attcqtqqct aymttttaaa aaagccacag ttatcttctt tttaaagaga tgccatatcc
                                                                    840
                                                                    900
ttattatcag caatagaatc aggatttgaa aatagtctt atgctacata tgcatttttt
                                                                    960
ataatcattc tttctattat aatctttttc agaaagggtg aaggggtaag gattatgttt
catactttgk gaaattctgk gctctataag catttttatt ttttgnccat aatagattat
                                                                   1020
ggtacaaagt aactcaaaac tagagtgtat aaacataaaa aatacaagtt ttcatatcca
                                                                   1080
                                                                   1140
agctgtggat aagatattca aatataaaaa agattgtgaa tttgttttaa aaagtcttct
                                                                   1200
aattttgtaa aaagamctaa gataattgtc cactaatcac tcattaaatc tcctccttag
ttctacttcc acaaaagcta ttaccatcta tgattaattt ggatttcaga ggaagaaaat
                                                                   1260
acagtttgag gaaaatggat tgttggagcaatctcaatgt taactacata aaatagctta
                                                                   1320
ttacttgaaa aatgaggata ttgtatgaat tttcgcaagt caattggtag caaaancgac
                                                                   1380
                                                                   1440
atttaagtga ttgtaaatat gtcatatata aaactatctt gtaaagatgt tacagagata
                                                                 1500
ttatatgtta ctagcttctg gattcagaaa aataactgga acagatttaa gttgggtaat
tgtagtgtgt ctaataattt taatacaagg taaaaacatt ttctgttgaa aatcagtttt
                                                                   1560
aatattgttt ggttttattt atattttgaa aatttaagga ttcttgaata ttcttaagta
                                                                   1620
                                                                   1680
aattgcaatt taatgcaatt gtagttatac tcagtaatat agttacmctt gattraagcc
attataaagg aaatgtaatc ccatactgat tatcttcaca tttcttttgg ttaaagatca
                                                                   1740
gtctatttca ttgagataac agttcaggag aaaagttatt gactacatgt atctatagta
                                                                   1800
ttgtctaagc aacaggagtt tagtttgcat gttttttatt tttgagagta catcaacgta
                                                                   1860
                                                                  1920
atgaaatgta tttaaaattg tacccatata tacataatga tatatatata tattatgtt
ttmcagcagt gtttttcctt ggagatgatt caatcaaatt gcaaagrggc acttctaatt
                                                                   1980
                                                                   2040
aattattggg aagtmcaagc taggaytatt gttttcctga acgtttgtgm cttgtagtga
tctcttmcag acgtgggggt ctggmcactt ggaccttaaa ttggaaatgg ttaaaaaatt
                                                                   2100
2160
                                                                   2220
ttttgagacg gaatctgtca ccctgcactc cagcctgggt gatagagtga nactccgtct
caaaaagaaa aaaaaaaatc aacacctaaa aatttacttt cttctagtca atttatttcg
                                                                   2280
atgtgcatca taaattaata acaaaagggg tagatatttt attgagctatggttcctgaa
                                                                  2340
tcaaaaccac aatctggagg tttccgtctc ttcataaaag aagttaaaac tcagtgcatg
                                                                   2400
                                                                   2460
ttgctagacg tcatttaatg atcttcattc ttctctgtcc agagcatgtg tgaagtatta
                                                                   2520
ggccagaaag agagagataa ataatctttt cccatgcacc cctgctggtc acagaagctg
gctctttaaa gtttgagtaa ctgtcacttt gtcaggcatg gttataaagt ttccagaaag
                                                                   2580
aactagtaag gagcattaat ataagatttc cccagatgcc aattttgttt tctgctatat
                                                                   2640
                                                                   2700
ctcactcctc tttgaatttc ctcatacaat tttccattta aaatggagaa ttcagctttc
                                                                  2760
ttgatcctat aataaacaca tttgtcttta tttgatacaa aaaaaaaaa aaagkgcggc
                                                                   2761
С
```

```
<210> 23
<211> 2849
```

<220>

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Homo sapiens

```
<222> (1)..(1)
<223> n equals a,t,g, or c
<400> 23
ngggctgcaa ggacctgagc tcagcttccg ccccagccag ggaagcggca ggggaaagca
                                                                       60
ccggctccag gccagcgtgg gccgctctct cgctcggtgc ccgccgccat gtgggccgtc
                                                                      120
                                                                      180
ctgaggttag ccctgcggcc gtgtgcccgc gcctctcccg ccgggccgcg cgcctatcac
                                                                     240
ggggactcgg tggcctcgct gggcacccag ccggacttgg gctctgcct ctaccaggag
aactacaagc agatgaaagc actagtaaat cagctccatg aacgagtgga gcatataaaa
                                                                      300
                                                                      360
ctaggaggtg gtgagaaagc ccgagcactt cacatatcaa gaggaaaact attgcccaga
gaaagaattg acaatctcat agacccaggg tctccatttc tggaattatc ccagtttgca
                                                                      420
ggttaccagt tatatgacaa tgaggaggtg ccaggaggtg gcattattac aggcattgga
                                                                      480
agagtatcag gagtagaatg catgattatt gccaatgatg ccaccgtcaa aggaggtgcc
                                                                      540
tactacccag tgactgtgaa aaaacaatta cgggcccaag aaattgccat gcaaaacagg
                                                                      600
                                                                     660
ctccctqca tctacttaqt tgattcggga ggagcatacttacctcgaca agcagatgtg
                                                                      720
tttccagatc gagaccactt tggccgtaca ttctataatc aggcaattat gtcttctaaa
                                                                      780
aatattgcac agatcgcagt ggtcatgggc tectgeaceg caggaggage ctatgtgeet
gccatggctg atgaaaacat cattgtacgc aagcagggta ccattttctt ggcaggaccc
                                                                      840
cccttggtta aagcggcaac tggggaagaa gtatctgctg aggatcttgg aggtgctgat
                                                                      900
cttcattgca gaaagtctgg agtaagtgac cactgggctt tggatgatca tcatgccctt
                                                                      960
                                                                     1020
cacttaacta ggaaggttgt gaggaatcta aattatcaga agaaattgga tgtcaccatt
                                                                    1080
gaaccttctg aagagccttt atttcctgct gatgættgt atggaatagt tggtgctaac
                                                                     1140
cttaagagga gctttgatgt ccgagaggtc attgctagaa tcgtggatgg aagcagattc
actgagttca aagcetttta tggagacaca ttagttacag gatttgctcg aatatttggg
                                                                     1200
tacccagtag gtatcgttgg aaacaacgga gttctctttt ctgaatctgc aaaaaagggt
                                                                     1260
actcactttg tccagttatg ctgccaaaga aatattcctc tgctgttcct tcaaaacatt
                                                                     1320
                                                                     1380
actggattta tggttggtag agagtatgaa gctgaaggaa ttgccaagga tggtgccaag
                                                                     1440
atgqtqqccq ctqtgqcctg tgcccaagtq cctaagataa ccctcatcat tgggggctcc
tatggagccg gaaactatgg gatgtgtggcagagcgtata gcccaagatt tctctacatt
                                                                    1500
                                                                     1560
tggccaaatg ctcgtatctc agtgatggga ggagagcagg cagccaatgt gttggccacg
                                                                     1620
ataacaaagg accaaagagc ccgggaagga aagcagttct ccagtgctga tgaagcggct
ttaaaagagc ccatcattaa gaagtttgaa gaggaaggaa acccttacta ttccagcgca
                                                                    1680
                                                                     1740
agggtatggg atgatgggat cattgatcca gcagacacca gactggtctt gggtctcagt
                                                                     1800
tttagtgcag ccctcaacgc accaatagag aagactgact tcggtatctt caggatgtaa
ctggaataaa ggatgttttc tgttggacat gtactgaaaa ttaacacatg tagtagcctt
                                                                     1860
aaaattttag acttctcgaa catgaggctg ttacagtaat ttttttaaca ctgtgcattg
                                                                     1920
                                                                     1980
tacttttcta ccttaaaaaa atcagtgagg atatttattt aatgaacatc aattcctttt
                                                                     2040
aaattttett agagaaattt etetgtgget eagttttaee acceataaag eggagaeagt
                                                                    2100
aatttatggt tatcctttct gacccacaaa gtatgaaaag ttctgtaatc tgtaactca
                                                                     2160
gttctgtaat ctgtattatt gagatgatta atataaagtt gtattttcac tgaaactgat
                                                                     2220
tgtcattgct gagttatgct atggtgatac tttcacgcgg gctataattt tatgacaagg
                                                                     2280
catctgttac ttcagctggc cataaagtgc cctcaacact gctgtgcaga ccatcaccac
cattcatctc cagaattggt actcagtacc aaactgcaaa ctatagcgat tcaaacaaca
                                                                     2340
                                                                     2400
gtgctcccca atttcaccac taccacgagc ccatgacatc tactatatat catactgagt
                                                                     2460
ctgagaaagc gatgtaacca caatagacac aaaccagaca atacgaaaga ataaatacac
                                                                    2520
gactecaceg aageaacaca acacecagaa gateaaacaa gaetatgegecaceacaca
                                                                     2580
cccaaacagc aggaacaaag agaacctaag aaaaacacca caaacaagaa tctacacaac
aaacgcaaca tcaacaagat agccaaggat agactacaca aaaagccata gaggaacctc
                                                                     2640
                                                                     2700
ggactggtca ccaagagcag aacaaccgac aacacacaat acagtacaaa caagacaaac
                                                                     2760
gctggacaag cgagtaaaaa gatgaagaaa aaacgaagaa tcaacaacag gagaagtata
                                                                     2820
tgaaaacaac accaacgcaa gaacacaaca gtctgaacga cagagacaaa tactaaaacg
                                                                     2849
acaaacgtca gctactatta accgaaaaa
<210> 24
```

<221> misc\_feature

<211> 755 <212> DNA

```
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (733)..(734)
<223> n equals a,t,g, or c
<400> 24
natttcccqt tcagttattc cggtgacact atagaaggta cgcctgcagg taccggtccg
                                                                       60
                                                                      120
gaattcccgg gtcgacccac gcgtccgaac tcctgaaaca gtgaggacat ctcacagacc
                                                                      180
agacaggage tggggetetg cateteacag eggtgeetgt eagacaggaa gaagteeege
                                                                      240
agaagtggcg tgtgggtcag ggcctgcacg atgcagttca tgaagcatgt gttcccaagg
                                                                     300
ttgatcagcc cacgcagacc tatggtgcag ttcgaggtga tcttctcct tttcgggttg
tgcttcagca gttcaagctc ccgtttggtt ggttcccaag ttgaaaactt ctctccaacg
                                                                      360
ccttgcattt tccaagcttt tcgctgctcc tccttggcga ttatttccat gtctttgtca
                                                                      420
                                                                      480
tagatgtagt cctggcacag aaaacagtag atgcctccgt acatcagatc aatggccagg
                                                                      540
ttgtgccgct tcgccttcgc atgctcgtga atatgcttct ttgtgaaaca gccgaagaag
                                                                      600
acacagtaga ggcaggaatg cagcctgttg aggtggacgc cacagacatg gcagatacag
gacttggcct tgcgcttgcg ggcctcagcc gtgccgctcc acacgaagca ctggtagatg
                                                                      660
                                                                     720
gcccgcaggt tctgcttcca gttgtccacc ttgaagctg ccaggtgcga gcagcccggc
ggcgctaccg ccnnctcggc gtccatggcc tcgcc
                                                                      755
<210> 25
<211> 4129
<212> DNA
<213> Homo sapiens
<400> 25
                                                                       60
ccacgcgtcc gctttttctc aggatgaata ttttcctggc cgactcattg atccttggta
                                                                      120
caaataaact tctggaagac ccagagagag gaaaacacag gagaaattga gcgatgtacg
tacatcaaat accactactc ctcagcaacc atccccagga acctcacttt caatatcacg
                                                                      180
aagaccatcc gtcaggatga gtggcatgcc ctacacctgc gcagaatgac ggctggcttc
                                                                      240
atgggcatgg cggtggccat catcctcttt ggctggatcatcggcgtgct gggctgctgc
                                                                     300
tgggaccgag qccttatgca gtacgtggca ggctgctctt cctcatggga gggaaaacag
                                                                      360
tggaattaaa gagtgtctgc cccagcccgg cagggtgaag taggatgggg aaaacgttct
                                                                      420
                                                                      480
caccagacce tgggacttet atgetgeage ategtgacet gaggggtgga tgeagttgee
                                                                      540
acagetettt gaggeaaagg eeeegatget etgtggacag eeteaggett gggatggatt
                                                                      600
tggcagtgag gaacttattg taacagaaga aagtcatcca agatgcctga ggaaagaaac
                                                                      660
cttcaattga gccagccggc tggaaaatgt ggccaagaaa accgcagaga ccaatgttcg
                                                                     720
gaggagaaaa ccagaaagag gggcctgcct ggccctttg atcctttatg gccgattccg
                                                                      780
tggacattgc tgctcctcac gccggcagcc tctcttgagt acctcaattg cagtctccag
                                                                      840
acceteacce egeaggeatt cetgggtegg tgteceagte ggteacagte atggateete
                                                                      900
tgcagagcag tagaaagtcg ggaggggccc gtgcccatgg tcaggaaagg agcggcagga
ggaaagagga gcatgagaac tcagaagaaa ttgtacctac tcagatgtgg agtgaggata
                                                                      960
                                                                     1020
gacgttccca gattcaaagg catcatgaag tgtcatgaca agatagaaaa gactttgggc
                                                                     1080
tggccaagaa qgaactggat aaaattatga gtgaggtaca gcaggtggga acagtgtcac
tgaaccctat caacagcaga gcatgagaæ gtgaattect gctgctgggg aggcaatgaa
                                                                     1140
                                                                     1200
atgatatggg ccttcagatg tctatgaatc ctgacccacc gtgggtgcca gttttcaaga
                                                                     1260
gggcttccca tcaaatattg tgcgcaaagg atggatggat gaaaggaaga gtgagccaat
                                                                    1320
aaacgaggga acgccgggaa aggcagcctc aagccggtgg gccctggcac ccccaccgtc
cctgagcatc gagccggttc ccgccccggc ccgaactggc ccgcgcgcgc tcgcagcccc
                                                                     1380
                                                                     1440
gcggcggaac ccgagggcgg cggcagcggt tccttgaacg agccggggaa tctggaggga
```

```
1500
gcacacagga aaggcagagc cgcgagctgg accagccgtg caaatctcta gaagatgacg
gtgttcttta aaacgcttcg aaæcactgg aagaaaacta cagctgggct ctgcctgctg
                                                                   1560
                                                                    1620
acctggggag gccattggct ctatggaaaa cactgtgata acctcctaag gagagcagcc
                                                                    1680
tgtcaagaag ctcaggtgtt tggcaatcaa ctcattcctc ccaatgcaca agtgaagaag
gccactgttt tctcaatcct gcagcttgca aaggaaaagc caggactcta tttmgaaaaa
                                                                   1740
atgctgcccg attttacatt tatctggcat ggatgtgact attgtaagac agattatgag
                                                                    1800
ggacaagcca agaaactcct ggaactgatg gaaaacacgg atgtgatcat tgttgcagga
                                                                    1860
ggagatggga cactgcagga ggttgttact ggtgttcttc gacgaacaga tgaggctacc
                                                                    1920
ttcagtaaga ttcccattgg atttatccca ctgggagaga ccagtagttt gagtcatacc
                                                                   1980
                                                                    2040
ctctttgccg aaagtggaaa caaagtccaa catattactg atgccacact tgccattgtg
aaaggagaga cagttccact tgatgtcttg cagatcaagg gtgaaaagga acagcctgta
                                                                    2100
tttgcaatga ccggccttcg atggggatct ttcagagatg ctggcgtca agttagcaag
                                                                   2160
tactggtatc ttgggcctct aaaaatcaaa gcagcccact ttttcagcac tcttaaggag
                                                                    2220
tggcctcaga ctcatcaagc ctctatctca tacacgggac ctacagagag acctcccaat
                                                                    2280
gaaccagagg agacccctgt acaaaggcct tctttgtaca ggagaatatt acgaaggctt
                                                                    2340
                                                                    2400
gcgtcctact gggcacaacc acaggatgcc ctttcccaag aggtgagccc ggaggtctgg
                                                                    2460
aaagatgtgc agctgtccac cattgaactg tccatcacaa cacggaataa tcagcttgac
                                                                    2520
ccgacaagca aagaagattt tctgaatatc tgcattgaac ctgacaccat cagcaaagga
gactttataa ctataggaag tcgaaaggtg agaaacccca agtgcacgt ggagggcacg
                                                                   2580
gagtgtctcc aagccagcca gtgcactttg cttatcccgg agggagcagg gggctctttt
                                                                    2640
agcattgaca gtgaggagta tgaagcgatg cctgtggagg tgaaactgct ccccaggaag
                                                                    2700
                                                                    2760
ctgcagttct tctgtgatcc taggaagaga gaacagatgc tcacaagccc cacccagtga
gcagcagaag acaagcactc tgagaccaca ctttaggcca ccggtgggac caaaagggaa
                                                                    2820
                                                                    2880
caggtgcctc agccatccca acagtgtcgt cagagggtcc ccagggcatt ttcatggcaa
gtacccctct gcccccactc cagcagtgct tcccaaagtg tgctctgtca cctgctttgc
                                                                    2940
aatcggcttc cattagcgca tgttttattt tggtgtgæg gttggccctc ctaaacacgg
                                                                   3000
actttcctca ggctggttca agacggaaaa ggactttctt ctgttttctt ccaaagtgca
                                                                    3060
accacagtgg agagcccacg gtgggcttag cctgcctagg cccttccatt tctcttcttt
                                                                    3120
                                                                    3180
gaccgtgcta ggaattccag gaaagtgcat tcctgccctg gtgacctttt cctatgtcta
ggctcctcca caggtgctgc tattttgtga gctccggctc ctgtttagct tttatttcag
                                                                    3240
                                                                    3300
ttctaacctc agtccagaaa catatgtgag gttgtttccc tcttcagcca cggctacaat
accggaaaat gctagttttt atttattttt ttaagtagtg cttcctaaat ggtttgcatg
                                                                    3360
agagccacct ggggtacatg ttgaaaactt attggggtc taccccaaac ctaataaccc
                                                                   3420
aaatttgggg atggggccca ggaatatgca tttttaaaaa gtcatctgcc cttcccaggt
                                                                    3480
gattctgtaa gttgtccctc aactgtactt ggagaaatcg tgttttaaag cagtagtcca
                                                                    3540
caaagtattc tgctcatgtg cccccaaaag tattttgaaa aatcatgtat accctcaccc
                                                                   ക്കറ
atctaagttg atatctaaaa ttttatctaa gttggtatct aaaatttttc atgggaagtt
                                                                    3660
aaatagttga caaagtatgt atttgctggt gtcgtgtaaa tattggtatt ttaaaataaa
                                                                    3720
aactgttaca tcactatttt aaacatatcc agtacaattt aaatatcaca acaatttgac
                                                                    3780
accetteatt catttataaa aataaatgag etagttettt agtagttaaa cattteaaat
                                                                   3840
tggcttttct ccttctgtat ttccatacca cttttcagcc aagaatccta tcataatgta
                                                                    3900
                                                                    3960
atctattatg cccgacatct ttttaatcaa ttcaccccat tacttcttgt caacaaaaaa
tataaatgga aattttttt ttagctcttg ctttaagtgt ttgtttgtta tctcagtca
                                                                   4020
gaaccaatat tatcgtaatt aattattggt atataatgaa aacggtatta attcttggat
                                                                    4080
                                                                    4129
<210> 26
<211> 1458
<212> DNA
<213> Homo sapiens
<400> 26
ccacgcgtcc gggaattttc aaaagatca aacagagact tcctgcatct tctgcctttc
                                                                     60
caacagaagc ggtgatcgtc taagtatgag cctgtggctt cctttgtgca tttgagcatg
                                                                     120
                                                                     180
ctgtaattaa gatgagatca gtttcttaga aaaagctttc ctgaatccct ctgacgttgc
                                                                    240
ctgggatctt tctgttgatt cgtcttttct ggagattggg acagagcatc tgtggtcog
                                                                     300
ggaagttagt cctctggcct caattctgtt gtggatgtgc agtgataagc gggcattgcg
```

```
tgcctcgggg gatgcctagt tcgtggcttc ctggctgttt tgtccttctg tgtcttgtag
                                                                    360
ctgtagggtg ccagctcagg gagtggggtg ttggcggcgt ttccgcggtt ggcctccttg
                                                                    420
ctttgccgca cctccaggtt ctgggcatga gaggccgtgg cctcatttct ggtggataac
                                                                    480
ctttttagtt taatagcatc tttaattaga tcacagcatt gaattcaaaa tttcttctgc
                                                                    540
aaagaaagtt gtggggcata agacaccggg aatgagggag gaggaagaca gttgtgtttt
                                                                    600
                                                                   660
ctctttaaac cttgagctct agccgatgca tttgtcagga aatacagcac ttgtcttaa
                                                                    720
gaaaacaagg aaggaggccg ggcgcagtgg ctcacgcctg taatcccagc actttgggag
                                                                    780
gccgaggcgg gcggatcacc tgaggtgggg agtatgagac caccctgact aacatggaga
gaccctgtct ctactaaaag tacagaatta gccgggcgtg gttgcgcatg cccataatcc
                                                                    840
                                                                    900
cagctactga ggagacttga ggtaggagaa tcacttgaac ctcagcggcg gaggttgcag
                                                                    960
tgagtcgaga tcgcgccagt gcactccagc ctgggcaaga agagcgaaac tgggtctcaa
                                                                   1020
gttaaaaaaa gaaagcaagg aaagagtaat ttacaacgaa ggaaaaaaac ccacagcaca
cccttcgcgg ctgtcagcgc tctcctgatg tcacagtggc tgcgtgtct tggggtgggt
                                                                  1080
gaggtgtggg gagcccagcc cctggccctg cctcccgcgc cccgctcccc ttctctct
                                                                   1140
                                                                   1200
tactoggita agocatagog aggootoogo togtttoaga tatgaatttg tittatagat
tataaatatg catatacagt gtatgtataa agcagaatgc ctgcctttcc tggttatttt
                                                                   1260
ttgtaccata ttgtaaatta tattatttat tctttaccaa ttttgggaat aaaaggtgtt
                                                                   1320
                                                                   1380
ttggttattt aatataataa gagctgttaa acttctgttt aaatttccag ttcaacttgt
                                                                   1440
1458
aaaaaaaaa aaaaaaaa
<210> 27
<211> 1674
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1649)..(1649)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1663)..(1663)
<223> n equals a,t,g, or c
<221> misc feature
<222> (1665)..(1665)
<223> n equals a,t,g, or c
<400> 27
                                                                      60
caagttggta cgcctgcagg taccggtccg gaattcccgg gtcgacccac gcgtccggtc
                                                                     120
gaagataggt tcgagacggt ggatgttgca gctgatcatg cagttgggtt cggtgctgct
                                                                    180
cacacgctgc cccttttggg gctgcttcagccagctcatg ctgtacgctg agagggctga
                                                                     240
ggcacgccgg aagcccgaca tcccagtgcc ttacctgtat ttcgacatgg gggcagccgt
                                                                     300
gctgtgcgct agtttcatgt cctttggcgt gaagcggcgc tggttcgcgc tgggggccgc
actccaattg gccattagca cctacgccgc ctacatcggg ggctacgtcc actacgggga
                                                                    360
ctggctgaag gtccgtatgt actcgcgcac agttgccatc atcggcggct ttcttgtgtt
                                                                     420
ggccagcggt gctggggagc tgtaccgccg gaaacctcgc agccgctccc tgcagtccac
                                                                     480
                                                                     540
cggccaggtg ttcctgggta tctacctcat ctgtgtggcc tactcactgc agcacagcaa
                                                                    600
ggaggaccgg ctggcgtatc tgaæcatct cccaggaggg gagctgatga tccagctgtt
                                                                     660
cttcgtgctg tatggcatcc tggccctggc ctttctgtca ggctactacg tgaccctcgc
                                                                     720
tgcccagatc ctggctgtac tgctgccccc tgtcatgctg ctcattgatg gcaatgttgc
ttactggcac aacacgcggc gtgttgagtt ctggaaccag atgaagctcc ttgggagag
                                                                    780
                                                                     840
tgtgggcatc ttcggaactg ctgtcatcct ggccactgat ggctgagttt tatggcaaga
ggctgagatg ggcacaggga gccactgagg gtcaccctgc cttcctcctt gctggcccag
                                                                     900
```

```
960
ctgctgttta tttatgcttt ttggtctgtt tgtttgatct tttgcttttt taaaattgtt
                                                                    1020
ttttgcagtt aagaggcag tcatttgtcc aaatttctgg gctcagcgct tgggagggca
ggagccctgg cactaatgct gtacaggttt ttttcctgtt aggagagctg aggccagctg
                                                                     1080
                                                                     1140
cccactgagt ctcctgtccc tgagaaggga gtatggcagg gctgggatgc ggctactgag
agtgggagag tgggagacag aggaaggaag atggagattg gaagtgagcaaatgtgaaaa
                                                                    1200
attectettt qaacetggca gatgeageta ggetetgeag tgetgtttgg agaetgtgag
                                                                     1260
                                                                     1320
agggagtgtg tgtgttgaca catgtggatc aggcccagga agggcacagg ggctgagcac
                                                                     1380
tacagaagtc acatgggttc tcagggtatg ccaggggcag aaacagtacc ggctctctgt
cactcacctt gagagtagag cagaccctgt tctgctctgg gctgtgaagg ggtggagcag
                                                                    1440
gcagtggcca gctttgccct tcctgctgtc tctgtttcta gctccatggt tggcctggtg
                                                                     1500
ggggtggagt tccctcccaa acaccagacc acacagtcct ccaaaaataa acattttata
                                                                     1560
tagamaaaaa aaaaaaaaa aagggcggcc gctctagagg atcctcgag gggcccaagc
                                                                    1620
ttacqcqtqc atqcqacqtc atagctctnt ccctataqaa gtngnaaagg gttc
                                                                    1674
<210> 28
<211> 2005
<212> DNA
<213> Homo sapiens
<400> 28
                                                                       60
ggttgctggc ccaggtgagc gggcgcgctg gtccaggtga gcgggcgcgt ccccgcgacg
gcgctgcctg cccgaggcgg ttcacgtaaa gacagcgaga tcctgagggc cagccgggaa
                                                                     120
                                                                      180
ggaggcgtgg atatggagct ggctgctgcc aagtccgggg cccgccgcc tgcctagcgc
                                                                      240
gtcctgggga ctctgtgggg acgcgcccg cgccgcggct cggggacccg tagagcccgg
                                                                     300
cgctgcgcgc atggccctgc tctcgcgccc cgcgctcacc ctcctgctcc tcctcatggc
cqctqttqtc aggtqccagg agcaggccca gaccaccgac tggagagcca ccctgaagac
                                                                      360
                                                                      420
catecggaac ggcgttcata agatagacac gtacetgaac geegeettgg aceteetggg
                                                                      480
aggegaggae ggtetetgee agtataaatg eagtgaegga tetaageett teecaegtta
                                                                      540
tggttataaa ccctccccac cgaatggatg tggctctcca ctgtttggtg ktcatcttaa
                                                                      600
cattggtatc ccttccctga caaagtgttg caaccaacac gacaggtgct atgaracctg
                                                                      660
tggcaaaagc aagaatgact gtgatgaaga attccagtat tgcctctcca agatctgccg
agatgtacag aaaacactag gactaactca gcatgttcaggcatgtgaaa caacagtgga
                                                                     720
gctcttgttt gacagtgtta tacatttagg ttgtaaacca tatctggaca gccaacgagc
                                                                      780
                                                                      840
cgcatgcagg tgtcattatg aagaaaaaac tgatctttaa aggagatgcc gacagctagt
                                                                      900
gacagatgaa gatggaagaa cataaccttt gacaaataac taatgttttt acaacataaa
actgtcttat ttttgtgaaa ggattatttt gagaccttaa aataatttat atcttgatgt
                                                                      960
                                                                     1020
taaaacctca aagcaaaaaa agtgagggag atagtgaggg gagggcacgc ttgtcttctc
aggtatette eccageattg etecettaet tagtatgeca aatgtettga ecaatateaa
                                                                     1080
                                                                    1140
aaacaagtgc ttgtttagcg gagaattttg aaaægaggaa tatataactc aattttcaca
accacattta ccaaaaaaag agatcaaata taaaattcat cataatgtct gttcaacatt
                                                                     1200
                                                                     1260
atcttatttg gaaaatgggg aaattatcac ttacaagtat ttgtttacta tgaaatttta
                                                                     1302
aatacacatt tatgcctaga aggaacggac tttttttttc tattttaatt acacataata
tgtaattaaa gtmcaacata atatgttgtt tctctgtagc ccgttgagca tatgagtaag
                                                                     1380
                                                                     1440
tcacatttct attaggacta cttmcaagga caaggtttcc atttttccag ttgtaaaatt
                                                                     1500
ggaaccatca gctgataacc tcgtagggag caaccccagg atagctaagt gttatgtaat
atgcctagaa ggtgatgtga atgcgatt@ gaagcatagc cactcccatt ttatgagcta
                                                                    1560
                                                                     1620
ctcacatgac aaatgtcatc ttttgctata acctttgcca agttagagaa aagatggatt
                                                                     1680
taatgagata aatgaaaaga tatttamcct aatatatcaa ggcactattt gctgttatgc
tttgttattt atttcccagc acttgttcct tattgtagat tttttaaaga ctgtaacctt
                                                                   1740
                                                                     1800
ttactaactg tggtcttact aaaatttgtg cttgatactg cttttcaaaa agcctttaat
                                                                     1860
tagagccaaa aggatggaaa aggcaagata taaatgcctt ttatagatct cttatttaca
ttgaaaatta ttaccatatg tttagagcaa atccaagaaa acttcaacag cttctgaaga
                                                                     1920
                                                                    1980
tgtctatgaa tgttgaaaac tttcaatst cttggratgc tcakttaatt cgcagaccgg
                                                                     2005
cttaacggat taaacgcccc ccccc
```

<210> 29 <211> 1472

```
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<400> 29
ncttagctgt agatagaggc ggcaacctcg gaagtgcgga gcgggtgggc ctatatagat
                                                                       60
gttgaggtgc ggaggccgtg ggcttttgtt gggcctggct gtagccgcag cagcggtaat
                                                                      120
                                                                      180
ggcagcacgg cttatgggct ggtggggtcc ccgcgctggc tttcgccttt tcataccgga
ggagctgtct cgctaccgcg gcggccagg ggacccgggc ctgtacttgg cgttgctcgg
                                                                      240
ccgtgtctac gatgtgtcct ccggccggag gcactacgag cctgggtccc actatagcgg
                                                                      300
cttcgcaggc cgagacgcat ccagagcttt cgtgaccggg gactgttctg aagcaggcct
                                                                      360
cqtqqatqac qtatccqacc tqtcaqccqc tqaqatqctq acacttcaca attqqtttc
                                                                     420
attctatgag aagaattatg tgtgttgtgg gagggtgaca ggacggttct acggagagga
                                                                      480
                                                                      540
tgggctgccc accccggcac tgacccaggt agaagctgcg atcaccagag gcttggaggc
                                                                      600
caacaaacta cagctgcaag agaagcagac attcccgccg tgcaacgcgg agtggagctc
agccaggggc agccggctct ggtgctccca gaagagtgga ggtgtgagca gagactggat
                                                                      660
                                                                      720
tggcgtcccc aggaagctgt ataagccagg tgctaaggag ccccgctgcg tgtgtgtgag
                                                                      780
aaccaccggc ccccctagtg gccagatgcc ggacaaccct ccacacagaa atcgtgggga
                                                                     840
cctggaccac ccaaacttgg cagagtacac aggctgccca ccgctagccatcacatgctc
                                                                      900
ctttccactc taagccgtag cctcttctgt taataacaca cagagagctc tgccaagcac
                                                                      960
ctgagtaggc ccttgacact tgtgtgccct gggatgcctc ctggcgcgaa tcaggaggtt
ctggaaggac tctggctata ttctgcaaat gtggctcatg ccccttaccg tggctcggcg
                                                                     1020
ttgtggtgcc tgagggacag ccggccacct gcccagtact ggtcagcttt tcaacactat
                                                                     1080
tccctttgac ctactggcca tcttcctcac agccctcaga tatcaacggg cacaaataag
                                                                     1140
                                                                     1200
accaactcaa tttccacttg aatttacaac caaaagcctg ctgagttgat tacagctggg
                                                                    1260
ccaatacagt acgaggcaat aacaaattag tgtgggttga ttctgaatt ggaaaagctt
ttgcttgtat ggatacagca aatccagatg tctctgaaca aagcaacaat ttaaagcaac
                                                                     1320
                                                                     1380
gacattttct gtcctttaag cacttaaaat caggtgtggt gtgttttcaa aggcagaagt
ctgcattttg agcaaaaggt ggcttcccag ctctaacaag gtaactggtt agcatgacat
                                                                     1440
                                                                     1472
taaagcttgg gcaaggcttc aaacttaaaa aa
<210> 30
<211> 812
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (17)..(17)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (108)..(108)
<223> n equals a,t,g, or c
<400> 30
                                                                       60
gaccattttt agccaanctt ggaattaacc ctcacttaag ggaacaaaag ctggagcttc
                                                                      120
caccgcgttg gcggccgctc tagaactagt ggatcccccg ggctgcanga attcggccac
                                                                      180
gagaggactt ccccacctca tgcagctatt tgggccgtgg cgtctgaaat ttattatttc
                                                                      240
agagtcaccc ctttratgac cttggcagtg ractgcagtc atctgtttag gcctttccat
ggcccacgte aatgcegtta tttctgtttg ttgcacattt gatttccttg ttgttggcat
                                                                      300
ttagaaggcc ccctgcttcc cagatcacac cacgggcatg gaccacagag attgcatctt
                                                                      360
```

```
420
gtgagtctgt agaaatggtc aaggccttgt cctctctag gtccagagct caggtgaatg
                                                                      480
cagattttcc cggccatctg tgctgaagtc cctgtgggga ggctcctggc tggtttcctg
                                                                      540
taggtagaca gctacacgtc ctgcccttca ttggcttctt ttcatgaagc tcctgccatc
                                                                      600
tacaaaacat gtctcccttc ttgaatcaca tctctgttat tgaagctctg gaagtcaacc
gggcgtggtg gctatgccta taatcccagc attttgggat gccggggcgg gtggatcacc
                                                                      660
tgaggtcagg agttcgggac cagcctggcc aacatggcga aaccccgtct ctaatacaag
                                                                      720
                                                                      780
tgcaaaaatt ggccaggcgt ggtggtcact gtgctccagc ctgggtgaca gagcgagctc
                                                                     812
cgtctcaaaa aaaaaaaaaa aaaaaactcg ag
<210> 31
<211> 1756
<212> DNA
<213> Homo sapiens
<400> 31
                                                                       60
ggcacgagtt ttcctctcac atatatattg ttttgtgtcc ctggctaaag tacaagcttt
ttgaaggcag aaaccatgtc tttggtttct tttgtatttc ccatagcacc ttttactgtg
                                                                      120
                                                                      180
agagtgggca cacagtatat gttgtggaat gacatcctga gtgatccctc cctggctggg
cctcagatta aattccctga aatggaacag tcctaaccaa cacaggacag gtattctcca
                                                                      240
totggcatgt tggttgctcc tttcaacctg ctatttgaaa tggctccctt caacatcttt
                                                                      300
ctgttcccac agtggggctt gctatggcta atgtgtact tgctgtatgt gttccaggcg
                                                                     360
                                                                      420
agtctgcgga caccagaact gacctgggag cgagtgagat ctcaagttga ccagtgatat
                                                                      480
ggcctgatgg caagaggata gtactgctgg cagaggtaag ctgagactgg caaaaatact
                                                                      450
ccccacaac aggagagact gcaataccca ggtcccctcc tcctcatgtt ctcgaatact
                                                                      600
ttcaactcct ctgttaagca caagtttgac tactttccca atggatttta cttctaattg
tgaaagatct tttcattcag caattaagaa actattttgg ttccccactt ttcaccaatt
                                                                      660
atcctgtctc tccacgtcaa tccacaggtt gagttagata attattacta tagaaggaat
                                                                      720
tcacagatag aaccagtgcc actttgadg atgcatacaa agagataatg tcacttgtgg
                                                                     780
                                                                      840
gatgttttaa tcactaagca caaagtagat atgcccgact gtaaccagga ctatcttagg
                                                                      900
caagttctgg gaatgtatgt ttttactgat agattccctg tttttgaagt ccattccctt
                                                                     960
gaattgagcc agatgagtat aggtacctac ctagatatca attgctcaat tgatatttc
ccatcctagc tcctagctca cattgacact attgactttc attttattgg cttccatgtc
                                                                     1020
agtgtttgac cacttttcct ttcttaaaag ctcctcttcc ctagtcctgg attcctgaca
                                                                     1080
gctataatat tagatgcctt ctattcttac cttgaagctt tctcttcttc agagaaagat
                                                                     1140
accaaaatat caaggaggat aataatactt ttctcaattt tgattttcag ttggtttttt
                                                                     1200
ttcttttttt atattaaaga acctgaatat gaaaatgtaa aatatacatt gtctttatct
                                                                     1260
aggggcccat aagttaggag tttttagtgt ccttactgtt tcttcacatt ttcctcactt
                                                                     1320
tatctcatct tctcagatac ttcagggcat ttgtaaaggg actgaactat ttttcacaa
                                                                    1380
ggaaggagta tatatgagga ggagatgggc agattgccaa atatgcatta atagctttga
                                                                     1440
tgtcagtctg ctgactgatg acttgtttct agctgcccta ggaggtccca cctggtaatt
                                                                     1500
ttggtgacaa aagcaagtac catgggtgtt tttggctaga tggttgagca aaaaggtggt
                                                                     1560
                                                                     1620
caggetteat aggaaacaaa ataggaaagg gtggeattgg gggeaattte tagttettet
                                                                     1680
actgtctgaa tcaccaactc aaaatacaag gctgacaatg ctgtctttga attcaggaga
                                                                     1740
agcaaactga aggagaagca caaaaatcat cacagctatg gtgaaaccct gtctctacaa
                                                                    1756
aaaaaaaaa aaaaaa
<210> 32
<211> 1675
<212> DNA
<213> Homo sapiens
<400> 32
cttaaagacg ccaggtagag acacacagaa cgtatgtatt aagaatatcc tctctgggct
                                                                       60
ctgaaatttt aggagtgatt cttatccact ccaagttgta agtatttgta gaaatttgtg
                                                                      120
                                                                      180
caaacaaaca aaaactatca aatgaaaaga aaatgtactc aacctaactt atagttagca
                                                                      240
gctggaattc tcaactcttc cctgccagca ctataccaca gtgtggaaga aattagtcaa
atgcttgttt tcctgcttct cttttcaact gttactgtgc tttgtttgaa agtagttttc
                                                                      300
```

```
360
tctctcaaag ccgttgctta tatcgttaag aatgaaggtt tgtgtttaa atttattgca
ttgcaaaggg tagtttcact gaagtcatgc accattaaat aagatgaaat atttgtattt
                                                                      420
attgtcctac ttcctaagcc gtaacttctt ttcctctgtg aatttgcatt gagtcactca
                                                                      480
tgctacacta catcgcttta gtatttgaga tggcatttat gtttcctctc gtttatcatg
                                                                      540
aaatqqqqtc aqattccatc aqattccacc tctqtcaqqt qqactcttqt ctqccttcca
                                                                      600
                                                                      660
tgatgagatt ttttttctcc ttcccctttc tttaagagag gctgacagat ctaggtgtca
atcaattgga aaccagtctc tgattttttt tcattagtta ttttctatca ttagtttcac
                                                                      720
tgtgtaaatt agatatcaac tgcacttctt taaaaaaaaa taatctccc tattacctcc
                                                                     780
ttgaaagatt tacttctgta ggcctttttc aataggctca tgactgcaga caaggaaaaa
                                                                      840
                                                                      900
aaaagtaaaa acaaaaacag tatgtgcctg aaaatgacaa aaaaaaaatt tgtaacattt
aaaaaaqaaa cctqaatagc ctttaattct ttaataatac acttaaattt tatgtaaatc
                                                                      960
                                                                     1020
ggttttcgcc acgtgtgttt gttcacattc taaatgactt aatgggattc tcacggtctg
tgtctttgtg tcacgtgtat aaaatgggct tgtgatgtaa gcgtttcatc tggtcagtgg
                                                                     1080
ttcctttgat attgtactgc tgctgggagt gggctgtgga acctgccttc gggtaactgg
                                                                     1140
gttcctcttg ggtagattgg agagatgggg gtgggcgtg gcaaattctc acacatgttt
                                                                    1200
                                                                     1260
tcttaaccta tttgcagaaa ctttcaaaag gcatttgatt aaacctcttg gcagtacagt
attettgtat ttgttaacgt ctgtgtttag gtactggtac ctttttgttt taaaatgttc
                                                                     1320
                                                                     1380
taagtgttgg ctttaaagtg aatttatctt tagtatgata gttatatgaa aattatagga
                                                                     1440
tttgtgtgca gagaattttt ttataaagtg ctttgtaaaa aaaaaaaaat gtattctagc
ttttgcggta catatgtgtg ataactttaa tacccatgac agttaagtgc aattatttca
                                                                     1500
                                                                     1560
tcactctaaa aatgctattt ttgtgtcagt tcctgcaggt gttttcatgt ctttgcaaag
tgacacattt tgatgccttc ttgataaagt ggagacatt ttgtagcttt ctagaaactt
                                                                    1620
                                                                     1675
tgtattcata cggtatcaat gaaaaataaa gaaaatgaaa gtgtgggtca aaact
<210> 33
<211> 910
<212> DNA
<213> Homo sapiens
<400> 33
ggcagagctg gccttcgact cgctatgtcc actaacaata tgtcggaccc acggaggccg
                                                                       60
                                                                      120
aacaaagtgc tgaggtgagg accccagcgt cgtgggcacg ggttcgggtt gtgggtgtgg
ateggggeee tgggaagege etgtetatee egggggeagg acetgagege eeetgaceet
                                                                      180
cgagcctgtc gcaggtacaa gccccgccg agcgaatgta acccggcctt ggacgacccg.
                                                                      240
acgccggact acatgaacct gctgggcatg atctcagca tgtgcggcct catgcttaag
                                                                     300
ctgaagtggt gtgcttgggt cgctgtctac tgctccttca tcagctttgc caactctcgg
                                                                      360
agctcggagg acacgaagca aatgatgagt agcttcatgt gagacttgcc ctacagaaca
                                                                      420
agtgactctt gagtaagggg tggggggacc ccagcctggc catcctagac tgacacctct
                                                                      408
                                                                      540
ctcctgtctt catgctgtcc atctctgccg tggtgatgtc ctatctgcag aatcctcagc
                                                                      600
ccatgacgcc cccatggtga taccagccta gaagggtcac attttggacc ctgtctatcc
                                                                      660
actaggeetg ggetttgget getaaacetg etgeetteag etgeeateet ggaetteeet
gaatgaggcc gtctcggtgc ccccagct@g atagagggaa cctggccctt tcctagggaa
                                                                     720
caccctagge ttacccctcc tgcctccctt cccctgcctg ctgctggggg agatgctgtc
                                                                      780
catgtttcta ggggtattca tttgctttct cgttgaaacc tgttgttaat aaagtttttc
                                                                      840
actctgaaaa aaaaaaaaa aaaaaaaaac tygrgggggg gcccggaacc caattcsccg
                                                                     900
gatagtgagt
                                                                      910
<210> 34
<211> 821
<212> DNA
<213> Homo sapiens
<400> 34
gttttgagtg tgtgaattac atatatgaac atctgaraaa atcctataag cagtttaatc
                                                                       60
aactgttcca ctccactcca agtgagtccataggcagaat tgagttatgg ggagagcggc
                                                                     120
ctagtaataa ttggtttgcg taatacaaag ttctactggg tagtgatgtt gtagaagttc
                                                                      180
atatagaatc agctgagctt tcagaaatgg tgaaagggtg gtaatagtca taacttagat
                                                                      240
```

```
300
tgtaattttt ttcccatagg cttttaaaaa atattcatga ggttcttttt ttatttcaat
agtttttggg gaacaggtgg tttttggtta catgataagt tcttcagtgg tgatttctga
                                                                      360
                                                                      420
gattttggtg cacctgtcat gtgagcagta tgaactctac tttatgtgta gtcttatccc
                                                                      480
tcatgtgtat gaactccacc ttatgtgtag tcttatccct cacccactcc tgcccttccc
                                                                     540
cacaagtccc caaagtccat tatatgatct ttatgccttt acatcttcac agtttagctc
                                                                      600
tcacacaact tattataatt tataagtaag ccagcattgg atatagttgt attccattat
taatttaaga aaccttatgc aagtaattat tagtcatcat cccaaaaaaa agggagaaca
                                                                      660
qqqttagatt cagaatactt tgataagagc taaatactat catgagtgct gtcagctgt
                                                                     720
                                                                      780
aqtaactttc cattggtatt ctatqtcttt taggcttaca gatacttttt acactcttac
aaaatqtqca caagaagaag ctgcagctca gagctcgtgc c
                                                                      821
<210> 35
<211> 981
<212> DNA
<213> Homo sapiens
<400> 35
                                                                      60
acggaagege agageaegga eeeegecee tegeggeeee getegtgaeg tegegggggg
cgccggcctc cgcccggccc cgagggcagg ctctccccgg aggctcagcc ccctctgctc
                                                                      120
cccatgggca actgccaggc agggcacaac ctgcacctgt gtctggccca ccacccacct
                                                                      180
ctgqtctqtq ccactttqat cctqctqctc cttqqcctct ctgqcctggg ccttggoac
                                                                     240
                                                                      300
ttcctcctca cccacaggac tggcctgcgc agccctgaca tcccccagga ctgggtctct
                                                                      360
tttttqaqat cttttqqcca qctqaccctq tqtcccagqa atqqqacaqt cacagggaag
                                                                      420
tggcgagggt ctcacgtcgt gggcttgctg accaccttga acttcggaga cggtccagac
aggaacaaga cccggacatt ccaggccaca gtcctgggaa gtcagatggg attgaaagga
                                                                      480
tcttctqcaq gacaactqqt ccttatcaca gccaggqtqa ccacagaaag gactgcagga
                                                                      540
acctgcctat attttagtgc tgttccagga atcctaccct ccagccagcc acccatatcc
                                                                      600
tgctcagagg agggggctgg aaatgccacc ctgagcccta gaatgggtga ggatgtgtt
                                                                     660
                                                                      720
agtgtctgga gccatgaagg ccttgtgctg accaagctgc tcacctcgga ggagctggct
                                                                      780
ctgtgtggct ccaggctgct ggtcttgggc tccttcctgc ttctcttctg tggccttctc
                                                                      840
tgctgtgtca ctgctatgtg cttccacccg cgccgggagt cccactggtc tagaacccgg
                                                                      900
ctctgagggc actggcctag ttcccgactt gtttctcagg tgtgaatcaa cttcttgggc
cttggctctg agttggaaaa ggttttagaa aaagtgaaga gctggaatgt gggggaaaat
                                                                      960
                                                                      981
aaaaagcttt tttgcccaaa a
<210> 36
<211> 1038
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (2)..(2)
<223> n equals a,t,g, or c
<400> 36
                                                                       60
qnaattcggc acgagttaat gtataaaata tttctataat gaattttaat gggaattaga
gcatcataga aaaaatgctc ttactgttga aaacattatt tgttacattt tggtcaacta
                                                                      120
atctttcaat aacttttagt aactataatg ttaagttgta ccagtggcag tcttatatag
                                                                      180
                                                                      240
taaatqqcaq ctqacaqcat qaaaataaca tatctaatat tttqtqacta tcttattaqq
aaaatcagaq aatttcaaaa ccttqttagt ttttagggta tagtcacatt ttataaatgt
                                                                      300
gcggtatatt tatacatgat ttgacgtttg tgwaaatatt ttccctgga ttttatttta
                                                                     360
                                                                      420
gatgagatct acagtgtagg caaacttata taatctgtca actccattag tgtcatagtc
                                                                      480
agactcatcc ccatgctaaa attatagttg tkaaaatacg cttttgtaaa tagttgtgtt
                                                                      540
aggtcattat caccaagtct tcaaggkatt acattataaa aaccttggkt tttattcttg
tgaatamccg ttttttccat gcaaagttaa aattcttcag cctttaattt ttttattaat
                                                                      600
atataaggat gtgatgagta tgactacaaa acaggaaaaa ataaacagat ttcgtttgtg
                                                                      660
```

```
gcttttgcta aattgttacc tgacaaaatc ttagccagtt cttcattttc gttttgagat
                                                                     720
gaagatactt agttttagtc caggggctgg gcgcgatagc tgagcctgt ggtcccagtg
                                                                    780
ctttqcqgqq ccqagqcagg tggatcactt aaggtcagga gtttgagacc agcctgccca
                                                                     840
                                                                     900
acatggtgaa acgttgtctc tactaaaaat acaaaaatta gacaggcgtg gtggcacaca
                                                                     960
tctgtaattc cagctactca ggaggctaac acaggaaaat tccttgaacc tgggaggcag
aggttgcagt gagccattgc actccagcct gggcaacaca gtgagactct tgtctcaaaa
                                                                    1020
                                                                    1038
aaaaaaaaa aaactcga
<210> 37
<211> 843
<212> DNA
<213> Homo sapiens
<400> 37
                                                                     60
ggcagctgtc caccgatccc ggccaccgcc cccggccacc cccacccgc gagcccatgg
aggeteeggg acceedage ttgeggactg egetetgtgg eggetgttge tgeeteetee
                                                                     120
tatgtgccca gctggctgtg gctggtaaag gagctcgagg ctttggggagg ggagccctga
                                                                     180
                                                                     240
teegeetgaa tatetggeeg geggteeaag gggeetgeaa acagetggag gtetgtgage
                                                                     300
actgcgtgga gggagacaga gcgcgcaatc tctccagctg catgtgggag cagtgccggc
cagaggagcc aggacactgt gtggcccaat ctgaggtggt caaggaaggt tgctccatct
                                                                     360
                                                                     420
acaaccgctc agaggcatgt ccagctgctc accaccacc cacctatgaa ccgaagacag
                                                                    480
tcacaacagg gagccccca gtccctgagg cccacagccctggatttgac ggggccagct
                                                                     540
ttatcggagg tgtcgtgctg gtgttgagcc tacaggcggt ggctttcttt gtgctgcact
                                                                     600
tecteaagge caaggacage acetaceaga egetaatetg acceettigg geetggacte
                                                                     660
catcctgagg ggaaaggagg atgcagaggg tggcctctgg gcacccttgt gggtaagcgg
ggggcggggg cgggaaaaac tctggccgcc agtttttggc tcctgcgggc accaagcagg
                                                                     720
ccaagtgttt aatgcctgac atctcctcct gtcctgggcc tggaacctgc agctgagaaa
                                                                     780
atccctcaac cacctcgtct cctccatcgc ccctgctggg ccccccagcc tgacagtggg
                                                                     840
                                                                    843
ttq
<210> 38
<211> 1061
<212> DNA
<213> Homo sapiens
<400> 38
                                                                      60
ggcacgagga ttctaggaca gggatggggg tgcagcactg atccaggacc cagaatggag
gcatcatgga gggtccccgg ggatggctgg tgctctgtgt gctggccata tcgctggcct
                                                                     120
ctatggtgac cgaggacttg tgccgagcac cagacgggaa gaaaggggag gcaggaagac
                                                                     180
ctggcagacg ggggcggcca ggcctcaagg gggagcaagg ggagccgggg gcccctggca
                                                                     240
                                                                     300
tccggacagg catccaaggc cttaaaggag accaggggga acctgggccc tctggaaacc
                                                                    360
ccggcaaggt gggctaccca gggcccagcg gcccctcgg agcccgtggc atcccgggaa
                                                                     420
ttaaaggcac caagggcagc ccaggaaaca tcaaggacca gccgaggcca gccttctccg
ccattcggcg gaaccccca atggggggca acgtggtcat cttcgacacg gtcatcacca
                                                                     480
                                                                     540
accaggaaga accgtaccag aaccactccg gccgattcgt ctgcactgta cccggctact
actacttcac cttccaggtg ctgtcccagt gggaaatctg cctgtccatc gtctcctcct
                                                                     600
caaggggcca ggtccgacgc tccctgggct tctgtgacac caccaacaag gggctcttcc
                                                                     660
                                                                     720
aggtggtgtc agggggcatg gtgcttcagc tgcagcaggg tgaccaggtc tgggttgaaa
aagaccccaa aaagggtcac atttaccagggctctgaggc cgacagcgtc ttcagcggct
                                                                    780
                                                                     840
tecteatett eccatetgee tgageeaggg aaggaeeeee teeeeeacee acetetetgg
                                                                     900
cttccatgct ccgcctgtaa aatgggggcg ctattgcttc agctgctgaa gggaggggc
tggctctgag agccccagga ctggctgccc cgtgacacat gctctaagaa gctcgtttct
                                                                    960
                                                                    1020
tagacctctt cctggaataa acatctgtgt ctgtgtctgc tgaaaaaaaaa aaaaaaaaa
                                                                    1061
<210> 39
```

<211> 601

```
<212> DNA
<213> Homo sapiens
<400> 39
                                                                    60
qctqccagqa attccgqcac ggggaacagt daatattga agcaaatgct gtataacaac
                                                                    120
cacctggaag cccctcatgt atctcttttt gaaaacactc ctctctttct ccactctaat
                                                                    180
gatgaccacc gccttgtctt ttatggtaat cactgttctt tgggttttat tactgcattt
attggctaat atatgcatcc ctagaaaatg tagttttgcc tgcttttata taaatggaat
                                                                   240
                                                                    300
attactgcat gcagtctttt gatttgtgat tgttttgctc taaggcttgt aagggtcatc
catgttttqc atataqtttq tttattqtca ttqccataqa qtaaatcatt gtatgaatat
                                                                    360
                                                                    420
actgcagttt atttactgtt gacatatgtt tcagttgttt ttaactacta ggaaatgcta
                                                                   480
ctctgtacat tcttgtatat gtaccttggt gcacatatgt atgtttttct agagtatata
cagtggcatg ggattgctga attaaaaggt ttgtatatct tatactagaa gataataaaa
                                                                    540
600
                                                                   601
<210> 40
<211> 1411
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1395)..(1395)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1397)..(1397)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1401)..(1401)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1408)..(1408)
<223> n equals a,t,g, or c
<400> 40
                                                                     60
ccggtccgga attcccgggt cgacccacgc gtccggcgtg aaccaccgtg cctggccgga
                                                                   120
agtctttaaa aaataaagtg attctactct tctaagcttacagagaccag accaggtgaa
tgtaactggg gaaaatcaag atggtacctc tctgcattat cccgccagac actgtatttt
                                                                    180
                                                                    240
atgcattcat gtctaggata cagtgtgaaa attaaaaagt ttagagggca gatgcaattg
                                                                    300
tggcaagtga cctgccaata aagcaggtgc agctatagaa gctggcatag gtatatcctt
aatggtgctt tetecetggg ettgtetttt tgttgttttt tteeeetata tteagagete
                                                                    360
                                                                    420
cttgagaagt gataaacacc tccagctttc taacatcctc cccacaccat ctcaccatat
ccatctccca gcatccatct gcattcagct aagggcggga aactgaccta gtgcctgtgt
                                                                    480
tgcagaccat ttctgaggtc tccaccatcc aaggggcac agccgtcatt actgtcctcc
                                                                   540
                                                                    600
atgccttcag cagccccct cacagctaag gtacatacca ccccttctgc cgcgcctcca
cccctggcac caaggtcttc tgctgcttat gtctaaaggg atcacctata tttaactgcc
                                                                    660
tcagtgacct aacctctttc ttctcatgtg ccagatgtta agatgaagga ggaatacmac
                                                                    700
acatactcaa gcctcagcct gtttagttgt tttcactggg gctcgctttt ctgggacggt
                                                                    780
atttattatc agactggcaa gcctaactcc ataggtttac aggaagtagg gatattttta
                                                                    840
                                                                    900
taaaacaatt gtgtcctccc cacattttgc tatgttaata tttgcttcta acaatttgca
```

```
qctgtttcac tttttcctca tttgtctcta agttgaaggc tttgttggag gggacagagc
                                                                    960
acaqqaacaq ccttgacagt ctgtaattat tgtacagata ttttaatagc atataaataa
                                                                   1020
                                                                   1080
gtatattcct tttattttga aacaaaaatg atcagacact gccttttgtg tgtttgctgc
ctgtggcatc cttttttaaa aagactgtta catattaaaa tagtgtacat atataaatat 1140
                                                                   1200
tacctctttt gctgtacagt tgtgatagag actgaagatt ttattttttg tgtgcttttt
ataagaaaaa aattaataca ctaaagaatc ttgctgatgt gattgtaatg tacctatgta
                                                                   1260
acttatttac ttttgaatgt tcttctgtat ctttaaacct tttattaaat aaggttttaa
                                                                   1320
                                                                   1380
aaattcaaaa aaaaaaaaa aaæaaaaag ggsggccsct ytaraggatc caascttgcg
tacgcgtgca acganancag ngtcgagngg t
                                                                   1411
<210> 41
<211> 1554
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (695)..(695)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (874)..(874)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1190)..(1190)
<223> n equals a,t,g, or c
<400> 41
                                                                      60
gctttaatag tgtacactta cacatctgga aggaagagag ttccatatgg cagggatgat
tgggacagga gggatctttt gataactttg tgtgagcatg aaaatcgaat ggggaaggga
                                                                    120
                                                                    180
gagctgtgaa aaaaaaatgt tatctctttt tttttgcttc tggaaaccca gctttttggt
                                                                     240
cagccgtctt gtgatttggc tgggcctggt ttgtgggggt cgctctctga gttgggtagc
tcttggagaa gattatctgg gaactcccat ccttatccca aacabcacc aaacctgccc
                                                                    300
                                                                     360
ccatccacca ttatgggaat tagtaccaga gcatccttgc agattagttc tcattttctc
tctttgtgag cacacacac tcaggtagag ttccagaaac ccagctttag gacactgttc
                                                                     420
acatatcaca ggaggagcaa ggacatgaat acaagagagc tettteetga ecageagtgg
                                                                     480
                                                                    540
gargtggttg tactatctat ttawttgttt attwatttat ttattttttg agatggartc
                                                                     600
teettetgte acceaggetg gagtgeagtg geatgatete ggeteactge aatetetgee
tectgggtte aageagteet eetgeeteag eeeceaagt agetgsgatt aeaggetgea
                                                                     660
                                                                    720
ccaccatgcc ccgctaattt ttgtattttt agtanagatggggtttcacc atgttggcca
ggctggtctg taactcctga mctcaggtga tccacctgcc ttagcctccc aaggtgctgg
                                                                    780
                                                                    840
gattacaggt gtgagccacc gtgcccggsc tggttccact atttattaaa atgtatatat
                                                                     900
gtgttttyca cttttttggt aggcatttta ttgntaataa tttggaaatt aaaaaaattt
                                                                     960
ctccacaagc ttattttttg tggagacaag gtctccctgt gttgcctagg ctggtcttga
                                                                    1020
attectggge taagtgattg gtetgeettg geeteteaaa gtgetgggga ttacaggeat
aagtcaccat gccctgtttg scagcaagkt ttawackgct ctttttggta gggawwtkct
                                                                    1080
maggtwcagt gatagagaac atgkagttgt ggtgggawac agtggctyat gactgtatcc
                                                                   1140
                                                                   1200
gcactttggg aggctgaggc aggaggattg cttgaggctg agagttgagn acaggcctgg
                                                                    1260
gcaacatagc aagacacctt ctctaaaatg aaaaaaatta gctggatgtg gtgtcatgta
                                                                    1302
cctgtagtcc cagttgcttg ggaggctgag gcaggaggat cacttgagcc tgggtgttca
                                                                    1380
agataggeet ggteaacaca geaagaceee ttetetaaaa atgaaaataa aaaaattage
                                                                   1440
tggttgtggt ggcatgtacc tgtagtccca gttacttggg aggctgagac aggaggattg
cttgagccag gggtttgagg ctgcagtgag ctatgactgc tcccctgcac cccaggctgg
                                                                   1500
                                                                   1554
```

```
<210> 42
<211> 1276
<212> DNA
<213> Homo sapiens
<400> 42
                                                                     60
gtgagtgtgt ggcactggtg gcctggagcc aaatttagct tgggtgagag ttgacaatgg
tagttttcct tcctcaagcc cctctgtgcc cctagagcac cctggctgtg gctgcctcct
                                                                    120
tcatccaaga gcagagtcca tgttgggcca ggagacttca gatccatgtc ctggtgctgc
                                                                    180
ctctggcttt gtctttcctc agtgggcagg actgggtctg ctggtccatc tttacccttc
                                                                    240
tetgagetat geageettgg cetgetgegt etceggeetg tattetete cetteactea
                                                                    300
ggccctggga aaccagccca gtttctkgcaggagaggcag aggaggtcaa tgcctttgct
                                                                   360
                                                                    420
ctgggcttcc tgagcaccag cagtggtgtc tctggagaag atgaagtaga gcccttacac
gatggagttg aagaggcaga gaaaaagatg gaagaagaag gtgtgagtgt gagtgaaatg
                                                                    480
                                                                   540
gaggcaacag gagcacaagg acccagcagg gtagaagagg ctgagggaca cacagaggtg
acagaagcag agggatccca ggggactgct gaggctgacg ggccaggagc atcttcaggg
                                                                    600
                                                                    660
gatgaggatg cctctggcag ggcagcaagt ccagagtcgg cctccagcac ccctgagtct
                                                                    720
ctccaggcca ggcgacatca tcagtttctt gagccagccc cagcgcctgg tgctgcagtc
ttatcttcag agcctgcaga gcctctgttg gtcaggcatc cccctaggcc ccggaccacc
                                                                    780
ggccccaggc cccggcaaga tccccacaag gctggactga gccactatgt gaaactcttt
                                                                    840
                                                                    900
agettetatg ccaagatgee catggagagg aaggetettg agatggtgga gaagtgeeta
gataaatatt tccagcatct ttgtgatgat ctggaggtat ttgctgctca tgctgccgc
                                                                   960
aagactgtga agccagagga cctggagctg ctgatgcggc ggcagggcct ggtcactgac
                                                                   1020
caagtctcac tgcacgtgct agtggagcgg cacctgcccc tggagtaccg gcagctgctc
                                                                   1080
atcccctgtg catacagtgg caactctgtc ttccctgccc agtagtggcc aggcttcaac
                                                                   1140
actttccctg tcccacctgg ggactcttgc ccccacatat ttctccaggt ctcctcccca
                                                                   1200
                                                                   1260
attgggggg ggcccc
                                                                   1276
<210> 43
<211> 2084
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (2075)..(2075)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2083)..(2083)
<223> n equals a,t,g, or c
<400> 43
                                                                     60
ggcacgagga gttgtgcaga tacctggctg agagctggct caccttccag attcacctgc
aggagetget geagtacaag aggeagaate eageteagtt etgegttega gtetgetetg
                                                                    120
gctgtgctgt gttggctgtg ttgggacact atgttccagg gattatgatt tcctacattg
                                                                    180
                                                                    240
tettgttgag tatectgetg tggeceetgg tggtttatea tgagetgate eagaggatgt
acactegeet ggageeeetg etcatgeage tggactaeag atgaaggea gaageeaatg
                                                                   300
                                                                    360
ccctgcatca caaacacgac aagaggaagc gtcaggggaa gaatgcaccc ccaggaggtg
                                                                    420
atgagecact ggcagagaca gagagtgaaa gcgaggcaga gctggctggc ttctccccag
tggtggatgt gaagaaaaca gcattggcct tggccattac agactcagag ctgtcagatg
                                                                    480
                                                                    540
aggaggette tatettggag agtggtgget teteegtate eegggeeaca aeteegeage
tgactgatgt ctccgaggat ttggaccagc agagcctgcc aagtgaacca gaggagaccc
                                                                    600
taagccggga cctaggggag ggagaggagg gagagctggc ccctcccgaa gacctactag
                                                                    660
```

```
720
gccgtcctca agctctgtca aggcaagccc tggactgga ggaagaggaa gaggatgtgg
                                                                    780
cagctaagga aaccttgttg cggctctcat ccccctcca ctttgtgaac acgcacttca
                                                                    840
atggggcagg gtccccccaa gatggagtga aatgctcccc tggaggacca gtggagacac
tgagccccga gacagtgagt ggtggcctca ctgctctgcc cggcaccctg tcacctccac
                                                                    900
tttgccttgt tggaagtgac ccagcccct ccccttccat tctcccacct gttccccagg
                                                                    960
                                                                   1020
actcaccca geoectgect geoectgagg aagaagagge actcaccact gaggaetttg
                                                                   1080
agttgctgga tcagggggag ctggagcagc tgaatgcaga gctgggcttg gagccagaga
                                                                   1140
caccgccaaa accccctgat gctccacccctggggcccga catccattct ctggtacagt
cagaccaaga ageteaggee gtggeagage catgageeag eegttgagga aggagetgea
                                                                   1200
ggcacagtag ggcttcttgg ctaggagtgt tgctgtttcc tcctttgcct accactctgg
                                                                   1260
ggtggggcag tgtgtgggga agctggctgt cggatggtag ctattccacc ctctgcctgc 1320
ctgcctgcct gctgtcctgg gcatggtgca gtacctgtgc ctaggattgg ttttaaattt
                                                                   1380
                                                                   1440
gtaaataatt ttccatttgg gttagtggat gtgaacaggg ctagggaagt ccttcccaca
gcctgcgctt gcctccctgc ctcatctcta ttctcattcc actatgcccc aagccctggt
                                                                   1500
                                                                   1560
ggtctggccc tttctttttc ctcctatcct cagggacctg tgctgctctg ccctcatgtc
ccacttggtt gtttagttga ggcactttat aatttttctc ttgtcttgtg ttcctttctg
                                                                   1620
ctttatttcc ctgctgtgtc ctgtccttag cagctcaacc ccatcctttg ccagctcctc
                                                                   1680
                                                                  1740
ctatcccgtg ggcactggcc aagctttagg gaggctcctg gtctgggaag taaaggtaa
                                                                   1800
acctggggca gtgggtcagg ccagtagtta cactcttagg tcactgtagt ctgtgtaacc
ttcactgcat ccttgcccca ttcagcccgg cctttcatga tgcaggagag cagggatccc
                                                                    1860
                                                                   1920
gcagtacatg gcgccagcac tggagttggt gagcatgtgc tctctcttga gattaggagc
                                                                   1980
ttccttactg ctcctctggg tgatccaagt gtagtgggac cccctactag ggtyaggaag
                                                                   2040
tggacactaa catctgtgca ggtgttgact tgaaaaaataa agtgttgatt ggctagaaaa
                                                                    2084
aaaaaaaaa aaaaaaaaa actcgagggg gggcnccggt acnc
<210> 44
<211> 1765
<212> DNA
<213> Homo sapiens
<400> 44
qgcacgagat ttctgggagt cctgcagagt ctagttgcca agtggaacat tcttaaaaag
                                                                      60
                                                                     120
atcqttcaqa agtttaccag aattaaaaga tgctgtcttg gaccagtatt caatgtgggg
                                                                     180
aaataaattt ggagtattgc tttttctgta ttctgtatta ctgacaaagg gcattgaaaa
cataaaaaac gaaattgaag atgcaagtga accettgata gateetgtat atggacatgg
                                                                    240
                                                                     300
caqccaaaqt ttaattaatc tcctgctgac gggacatgct gtttctaatg tatgggatgg
                                                                     360
tgatagagag tgctcaggaa tgaaacttct tggtatacat gaacaagcag cagtaggatt
tttaacacta atggaagett taagatactg taaggttggt tettaettga atetecaaa
                                                                    420
                                                                     480
ggctttagtt gcccctgaag ctccttcaga acaagccaga agagtttttc aaacctacga
                                                                     540
cccaqaaqat aatggattca tacccgattc acttctggaa gatgtgatga aagcattgga
                                                                     600
                                                                    660
ccttgtttca gatcctgaat atataaatct catgaagaat aaattagatc cagaaggatt
                                                                     720
aggaatcata ttattgggcc catttcttca agaatttttt cctgatcagg gctccagtgg
tccagaatct tttactgtct accactacaa tggattgaag cagtcaaatt ataatgaaaa
                                                                     780
                                                                    840
qqtcatqtac qtaqaaqqqa ctqcaqttqt gatqggtttt gaaqatcca tgctacagac
                                                                     900
agatgacact cctattaaac gctgtctgca aaccaaatgg ccatacattg agttactctg
                                                                     960
gaccacagat cgctctcctt cactaaatta atttgtctaa gtatttataa ggaagatctt
                                                                    1020
aataacagat gttgaaagaa ggagtcaaga ctggcaattg gctggattaa gctaaacact
ggtatcactg attaactgta aataacaatt aaaaacacat tttcagtgtt tatgatatgt
                                                                    1080
                                                                    1140
ttaaattatt tgtcctaaag ctttatgtta aagattatcc tattttaccc cttcgtgtga
                                                                    1200
aatttactag caaaattaag ctttcatcaa agttcatcac ttttgcattc agatacttgg
                                                                   1260
tcatttactt accaaattac aaacgcaata ctacagcatttgtatattaa gtatcacagt
tactattgat aaactacttt tgggttttat ttcattgagg cactttttt attgtttgaa
                                                                    1320
                                                                    1380
tgattccggc ttgtaatata tcagcctcta caatgaaatg cagaagagtt catttttcta
                                                                    1440
agatetgttt tteattagaa atattgacaa ataacacatt gteaacetgg atcetttgae
                                                                    1500
aatttactta actctggcat gttcacaaaa agtagaaact ctaagagacc attaccattt
                                                                    1560
```

attcacagat gtatagggga tgtattctaa aaactgacag aaaagagaat ctgatagtca

```
1620
acactgttaa cttttactgt gtaattgcca aatacacttt tccaaatttg tcccaacagc
cctgtaagcc agctttcttc tatatttata aacagataa atgcatgaga agatctgtta
                                                                    1680
                                                                     1740
ttacattagt atattacgtt atttattatg atcctagttg atggcctaaa taaacacctt
tttctttaaa aaaaaaaaaa aaaaa
                                                                     1765
<210> 45
<211> 2494
<212> DNA
<213> Homo sapiens
<400> 45
                                                                       60
ggcacgagga gatgtttaag gattacccgc cagccataaa accatcctac gatgtgctgc
                                                                      120
tgctgctgct gctgctagtg ctcctgctgc aggccggcct caacacgggc accgccatcc
agtgcgtgcg cttcaaggtc agtgcaaggc tgcagggtgc atcctgggac acccagaacg
                                                                      180
gcccgcagga gcgcctggct ggggaggtgg ccaggagccc cctgaaggag ttcgacaagg
                                                                     240
agaaaqcctq qaqaqccqtc qtqqtqcaaa tqqcccaqtq acccccaqac qcqqaaaccq
                                                                      300
ggtggcagcg cccagcctgg ccccaagcat ggaaacgcac aacccctaat cgccctgagc
                                                                      360
                                                                      420
tactgcttct aacacctctt ttcccttgtg tgagggcaaa ccaggctgca ggtggggttt
                                                                      480
tcacttccta gggtagttta attttaaaat aggccaatgt tggctagtct gtgcctcagt
gagatcagtc agctccgagt ggctcccgtg tcgtaacagc aggagcatgg ccgcaacttc
                                                                      540
ccaggecgag gaagggeeee eggeteggee tettgagage eccaeceetg aactggeeee
                                                                      600
agctcctctt cctgcctctc tcatggcttgggctggagtg ggctctctgg acctgaccag
                                                                     660
                                                                      720
actgtgggtc cctgcgtctc ctgcccactc tgaccgggct tcctccctcc acgcttaggg
                                                                      780
tctgtcccgg gtactcagtc agcccagtgg gatcttaccc acttccctgc aaggtgcacc
tgccccaggc tcaggctgcc cagcggctct tcctggacag tgagagcagg gctgggcgcc
                                                                    840
tctgtcctgg cccgggagcc gcaggggccc ctcctccaga gcctgggcgc aagcgacaca
                                                                      900
ggctgccgct gctctcccag gtgaaatcca caccagtcca cgccgggtcg cctgccctgt
                                                                      960
                                                                     1020
ctccctactt agacccagtc attctagagg gatccaccgc cacactggcc ggcccacgtc
                                                                    1080
ctgggtgctg tcatgcccag cttggagtgc cacgtggccg ctgcccacgt cccgggcact
                                                                     1140
gtcatgccca gcttggagtg ccacatggcc gctgcccacg tcccgggcac tgtcacgccc
                                                                     1200
agettggagt gecaegtgge egetgetgtg acaggeagtg ttettggggg tggggetgea
tccaaggett tgtaaaccgg ctggaccacg tctccctggc cccagtgacc gggggaget
                                                                    1260
gagecectee etectgtgtt tgeteceatt acteaaaatg caggacagat caggteagag
                                                                     1320
                                                                     1380
cccaggaatt ctcacaggtt cacccagcgc cctctacctc ctagcaagta ctttgtcttg
atcctcactg agaaggcccc agggcagcgg tcttctccat ctccgctgtt ttggggtctt
                                                                     1440
                                                                    1500
agggtacagc ccaggcggtc actgcccacc tgccaggctg cagggacagt tgggtgtgag
aataacactg gctttgggta gtgccatggc caggagtggg tttccctgcg tctcctcgtc
                                                                     1560
ccgagggcgc ctgggtcctc ccagctgacg gcagtaaatc cacagtgagt tggggcgact
                                                                     1620
                                                                    1680
gtgaaactgg aatgctgtta ctttgataat tactttccag caggtgttttccttcacaat
                                                                     1740
ggttttgttt ctttccttct gatctgagaa gacatgaacg ttttctcttc accgccgtgg
ggtgtattga ctggtccccc atgggctgct ggaaaggccc ggagatgcat ctgtggcctg
                                                                     1800
gggccatcaa gatcaaagaa ccaggaggcc tgggagatgc agctggatgg ggcggcctgc
                                                                     1860
agaccetgee aggggtttg aggaccetee caggttteee aetgeggaac aggagtgaet
                                                                     1920
ctggctgcca agataccttc atggtgttca tgacaagtgg aatcattatt ttcaaccatt
                                                                     1980
                                                                     2040
gaagggggat gcaggcaaga caccttccca gctgctccta gaggggacaa gccaggccct
ctctgcagtc ctcggcagct ccggaaggac acagtcaggg gccggcaaa cactttggcc
                                                                    2100
                                                                     2160
acagececaa acaagegeca eegtgggaga ggagaggetg etgteaetgg taeeggatge
agaccecace etgtetgeag gecacececa cetecetgea getttgagge tggeggggte
                                                                     2220
                                                                     2280
tgctcctggg aatggggtgg gagccacagg gacgacccgg ggcgggctga tgtcttcttg
ggggcagacc agagagctca agtttcagag tcagaattag gcacttggag cgtttttgct
                                                                     2340
ggcttgcact ttcttatttt cttattttag agcgcttaaa aaaatccgga aaaatggggt
                                                                     2400
ttaaaagaac tgtctctttc agtctacatt tttgtttaat acgcttgagc aataaacgct
                                                                     2460
tacttgcaaa aaaaaaaaaa aaaaaaaaa aaaa
                                                                    2494
<210> 46
```

<211> 1509 <212> DNA

## <213> Homo sapiens

```
<400> 46
                                                                    60
qqcacqagga tgtacctaat gagcttctcc attcactttg taaaaataat ttgtatgtgt
accatcttgg tcctctcccc tcccgttttg ttaaaatatc aggatagcac tcccaggcca
                                                                   120
ctttqqtctc aqtqtaagat ccctattaac tatctgaaag gaaaatagag ccaagacctc
                                                                   180
tggtctcaaa tatataggaa ttgcctttct ttagtcttca ggactattgt gtgaaaacaa
                                                                   240
                                                                   300
gtaggggtct aatctcctag aaggtagggg ctttatcctt aaagagaata tgtccccaga
ttattagcac ttttagagga gaagccaagg tatgtaggggtgtgtggctg gcccatcagt
                                                                  360
qqaqcacgaa gagagaatgg gataccattg tgggaagaga agaaaagttc ctcaggggcc
                                                                   420
tcccactgct aaagtttttt gtgagatgtt gatctgtgct tcctggattt gacttttaaa
                                                                   480
ggaattattc tggcagcaca tgtagtattc ttggatgatc ttgctgctct tatttctcct
                                                                   540
tttqtqtqtq tqtqtqtq tqtqtqqcta tqqqttttca tttqtaactc catctqctta
                                                                   600
ggagagtggg ctctctataa gggaacctgc tgtaaacttc attgcagcaa ggatgtagag
                                                                   660
                                                                   720
agaaatagga cttaattcca ctaggggctc tcatctcaca ccttaaggag gagatttcta
                                                                  780
gaaaaactqq qccagatttt ctttqttctc catcattta atgtqqcaqq ctqttcaqtt
                                                                   840
ttottactot tacctatgtg atatttotto gtaacgtgto caaaaagaaa aaagacccaa
                                                                   900
tcagtgtctc ttgactttgt tctttgatcc ctcagtttct tcttgatttc agcatgtgtc
gggttcctaa ttttgggtat gagttagcaa atttaaccat tgtgtttgtg ccctacccag
                                                                   960
gggactcccc agtttctgac ttgaagtaga ctgagaagaa tccacgaggt gctatctggc
                                                                  1020
                                                                  1080
cagatttaag tagattctat ttccttggtt ctccctctcc ctgaggacct cttattttat
                                                                  1140
tqtcccctct tctaqqttaa ttctcctttg atttgacttt gttgagaagg aggttggaca
                                                                  1200
gtagattagc aaagttccaa gtgcaaaattacagtgtgtt agagtgtggg gggaaaatta
gtcttatttt tccctacatg ggatacaaca ctgtgaattc aatcttcaac tgaaggccct
                                                                  1260
                                                                  1320
gcagttctcc taaaacatag ttgtttgttt ttctttaaca aagtttaagc tagtgttaat
aaattaaaaa aaattgcttg tctgtctact tcagctttgt tttatgccca tttcatattg
                                                                 1380
ttgtctgtgt tgtaattcat aacttttgat accatttctg atgtgtaaaa ttggttgtct
                                                                  1440
                                                                  1500
1509
aaaaaaaa
<210> 47
<211> 885
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (233)..(233)
<223> n equals a,t,g, or c
<400> 47
aattcggcac gagagggctg catccttgcg ttctgtgagc tctgcccgtt gggagcatcc
                                                                    60
atgctgatgt gcaggggccg tgcagcactg cattcttctt gccttctctg ttctgtttag
                                                                  120
                                                                   180
tacaaccacc ccagcaggtc tecagttect gecaggttag tgtggatggc ccagcaccat
ctcctctcca tcttgttggc tatcctctct tgttcctcac aaccccgcca ggntcgcggc
                                                                   240
                                                                   300
tcaggagete tgeegtgtga agtgtgetea geagttetee teacatgtet aegeaaaate
                                                                   360
tctggctccc tgtgtgtctg agccaacag acacactgag cacaggagtt ggctctcagc
                                                                   420
tecteccage ttgccgtgae tgagecytge egtectgtgg camegecasg gagaccaeag
tgtccaactg tccaaccttt acgtaattgg catcccagga ggagaagcaa gagtgaatgg
                                                                   480
ggcaggaaaa gatcattaaa gaaatcgtgg ctgacataaa aaaggatgag ttcbgtcct
                                                                  540
ttgtagggac gcgtggatga agctggaaac catcattctg agcaaactat cgcaaggaca
                                                                   600
gaaaaccaaa caccatgtgt tctcactcat aggtgggaat tgaacaatga gatcacttgg
                                                                   660
                                                                   720
acacagggtg gggaacatca cacaccgggg cctgtcgtgg ggtgaggggg atggggcagg
                                                                   780
gatagcatta ggagatatac ctaatgtaaa tgacgagtta atgggtgtca gcacaccaac
                                                                   840
atggcacatg tatacatatg taacaaacct gcatgttgtg cacatgtacc ccagaactta
885
```

```
<210> 48
<211> 1261
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (481)..(481)
<223> n equals a,t,g, or c
<400> 48
gttttcaaac tcatttctaa gccaaatagt ttagataaat atttaccctt atatttgggg
                                                                  60
ggaattcagg ctcaccattt gccgaggcaa gcccatcaac agtctagagg catattctgt
                                                                 120
gtcattcctt cccgtcct tcatagaata ctactttttc cttttgtctc ctggccattc
                                                                 180
                                                                 240
tocatcatct gotgattatt gotaaccaca ggatgotggo aaagottaca gtgataggoa
                                                                 300
catgtgttca gtgatgtcca atacactctt atcacagtgg ttattgcttc ttactctttt
                                                                360
caaatgcatt attctacccc tcaacctaya tccaatcatt agaactaac ctgactggag
cccagaactt gggaccaata cttaattcaa atagcagggg cttgctcaca aacattaagc
                                                                 420
ccaamaagaa gcacagcact ttkgaaaagt caaataggsc tttggtagct ctgtacattt
                                                                 480
ngcaatttac attgttatta agtttatagc actaataaca cttcagtcgt gaatctacag
                                                                 540
tctcaatatg ataagtctta gaacatgttc tagaaatagt ggtaccttgc tgctattata
                                                                 600
                                                                 660
cttagtaact tataccccaa tataataata agtattaaat acagattgtg tatgcattct
                                                                 720
ttgtgtgtat atgccaactg tactacttaa cctcactgat gagcaattag aaaaatacac
aaattgtcat agtgaaaata agtcttggtc aattcagatg &acgtgaac ctgataaatg
                                                                780
ctctaataga tatgctattt tgtcctgtat tgcttgtttt acagtatggt gcatgttgtt
                                                                 840
tgctaagtaa aatgataata ataataaagt atacccaatt ttaaggttag aattaaaatt
                                                                 900
ttgcacatat gcttcttgat attctgaaat gtattctgtg gsttmattat cttattcata
                                                                 960
cacattkmgc twggcttttt acccctagga aataactgtc caagtatata tctcgtcttc
                                                                1020
                                                                1080
tttcttgtaa ctttgattaa actgcttact tcaacttaca acattgtaaa gccagaatac
1140
                                                                1200
actacctaaa taggcttaac tgtaataata aatatæaat tttggcaaaa aaaaaaaaaa
1260
                                                                1261
<210> 49
<211> 790
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (37)..(37)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (55)..(55)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (76) ... (76)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (112)..(112)
```

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (120)..(120)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (137)..(137)
<223> n equals a,t,g, or c
<400> 49
                                                                      60
tcaactgggt gaaaaggaaa acccaccett ggcgccnaat acgcaaaccg cettntome
ggcgcgttgg ccgatncatt aatgcagctg gcacgacagt tttcccgact gnaaagcggn
                                                                      120
caqtqaqcqc aacqcantta aatqtqaqtt aqctcactca ttaqcacccc aggctttaca
                                                                      180
ctttatgctt ccqqctcqta tgttgtgtgg aattgtgagc ggataacaat ttcacacagg
                                                                      240
                                                                      300
aaacagctat gaccatgatt ægccaagct ctaatacgac tcactatagg gaaagctggt
                                                                      360
acgectgeag gtaceggtee ggaatteeeg ggtegaceea egegteeggt tgaatgeact
gagtcccttg gtgtagtagc aataaggaaa aatgaaatta ctttcctgtg cacacagtcc
                                                                      420
                                                                     480
agcetaattg gtatgtgatg ttgeacttag cagecatgtg gtgggeatgt ggactaete
tqqttttcac tttaqtttct aaacttttta tccctctcaa qtccagcatg gatggggaaa
                                                                      540
                                                                      600
tgtctctgga tccccacagc tgtgtacttg tttgcatttg tttccctttg agatttgtgt
                                                                      660
ttgtgtcctg ctttgagctg taccttgtcc agtccattgt gaaattatcc cagcagctgt
                                                                      720
aatgtacagt teettetgaa geaageaaca teageageag cageageage ageacaatte
tqtqttttat aaagacaaca gtggcttcta wwaaaaaaaa aaaaaaaaaa aaaaaaaaaa
                                                                      780
aaaaaaaaa
                                                                      790
<210> 50
<211> 3576
<212> DNA
<213> Homo sapiens
<400> 50
                                                                       60
ttcatctgcc tctcgcaaga aaaagtcctg gtaaatacac attagcattt ccgttttaca
                                                                      120
cagaacactg acagatactt tcctaagatc atggagttaa tacccaccag aacctagact
caatacttat ggaacttcaa atctcatgct tttctcattg cacttatgat tactccatta
                                                                      180
                                                                      240
tgtaggagca agggagægtt gagagcattt gaagaggtta tgcaaaggac cagctctgag
                                                                      300
gagtaggett agcaaagtaa catgagggaa ggtaacaccg ttcatctgtg tagcggagtg
                                                                      360
ggagccaaga gacaaggaga aagtttcatg ttcgtcatgt gtctcggata ttccggtttc
                                                                     420
tgcagggacg agaacgcgca gtttcgcctc catcccttga cctccaasc agcttctcca
ctggatcatc ggtggcgatg aaggggcggc tggggaagga tgtcagagaa accagaagct
                                                                      480
                                                                      540
tgacggtgaa tcctcgggtt ttaaggagag agcaaagtcc tgagagggcg acgtattgtc
                                                                      600
cctgctcacc tagcccagaa tgaacaaaca cgcgccagcc agggagcagc gagccgagaa
tteggacgag ctetgcaac egecatttge egttetegea aagactacca agaccacaat
                                                                      660
                                                                      720
gcaacqqqqc qccqaqctaa ttcccaqtqa qcaqcaqqcg aggcqccacc gacqcqqaaq
                                                                      780
actataagcc ccagcgggcg acgaccgaac gcccccggga acaccgggcc ccgagctcgg
                                                                     840
tecegegeee gaggateete caeggggeta gatggetgeg tgggggggg gageggaggt
                                                                      900
gagcgggcgc tagggccgcg agcccccgcc ggcccttcct ccagcgccct gcggaccccg
                                                                      960
cagaaggcgc tcgcctccct agcccgcaaa aacatatcga tttttctcgc tgtggcaacg
gggacgtcct gatagatcct ctgctccaat aggcaactcc ggccttccct gccctgacct
                                                                     1020
ggaacctctg ggagggctgc agagtaagtg ccgcctctgc gctccgacgg aggcacgagg
                                                                     1080
                                                                     1140
cctgtggagt aggtccctct gttccgacag gtgcgacact tggcgctcca tgcttgcggg
tgccgggagg cctggcctcc cccagggccg ccacctctgc tggttgctct gtgctttcac
                                                                     1200
cttaaagctc tgccaagcag aggctcccgt gcaggagag aagctgtcag caagcacctc
                                                                    1260
aaatttqcca tqctqqctqq tqqaaqaqtt tqtqqtaqca qaaqaqtgct ctccatgctc
                                                                     1320
taatttccqq gctaaaacta cccctqaqtq tggtcccaca ggatatgtaq agaaaatcac
                                                                     1380
```

```
atgcagetea tetaagagaa atgagtteaa aagettgeeg eteagetttg atggaacaae
                                                                     1500
gcttattttg gaagttcgaa ggggctgtcg tgtgtgtggc cctgatcttc gcttgtcttg
                                                                     1560
tcatcattcg tcagcgacaa ttggacagaa aggctctgga aaaggtccgg aagcaaatcg
                                                                     1620
agtocatata gotacattoc accottgtat cotgggtott agagaccota totoagacag
                                                                    1680
tgaaagtgaa atggactgat ttgcactctt ggttctttgg agccttgtgg tggaatcccc
                                                                     1740
ttttccccat cttcttcttt cagatcatta atgagcagaa taaaaagagt aaaatggttt
                                                                     1800
ccttcccttc tgtaacttgg agcaggaagt catgggggca gagagggaaa ggaggtggtt
acttaaggcc ccaatctacc aagtcttccc caccacttct cccttgtttt ccccctcttc 1860
                                                                     1920
tactacttat ttcaaacttc tgggatacaa tttcagctaa aacgtttatt tctcactcaa
aacttatttc ccctcaaccc tatacccaaa gaagaaataa aatcacagat acataacaga
                                                                     1980
agtatttgag gtaccctctc atatatgcaa acaaatgcag actaggcctc aggcagagac
                                                                     2040
taaaggacat ctcttggggt gtcctgagt gatttggacc cctgagggca gacacctaag
                                                                    2100
                                                                     2160
taggaatccc agtgggaagc aaagccataa ggaagcccag gattccttgt gatcaggaag
                                                                     2220
tgggccagga aggtctgttc cagctcacat ctcatctgca tgcagcacgg accggatgcg
cccactgggt cttggcttcc ctcccatctt ctcaagcagt gtccttgttg agccattgc
                                                                    2280
                                                                     2340
atcettgget ccaggtgget ccetcagtet ggactetace acttgggtet ccagatttte
tgttacgtcc ttgtgggtca ggatatttct ggaagtcact ccgtgaggct ggtaatcctc
                                                                     2400
                                                                     2460
aqacccaqct tctqqtcqac tctqqaatgq actgaagctg ggcaggatga tgagagccag
                                                                    2520
ggaaaaaaga agaatcaaaa cacaagtgct ggtctgggca gctttgttgg aagtttgagc
aattagcgtc tgcagctggc ggagctgagc taccaaggag atgttgtgcc tctccagctc
                                                                     2580
                                                                     2640
ctggactttt ttctgtaatt cttggttctg tgcagaacag gctgccaccc tgctctccag
                                                                    2700
cccatcaatg tactccttct tccgccgccg actgtcctga gctgactgct $ttacggat
                                                                     2760
tttcctcctg accttcttga ggaccctctc ctctgccttg gtgaggggca ggtgagaggg
                                                                     2820
cagggaaacc ccttcctgcc ccagcagacg cttctcctca tcggtcagga acagggtttg
                                                                     2880
acagggcage agggttgtac agggcactgg ggctacggtg cctgctctgg gcaggatgtg
ggcatgagca tcaaægggca gctcactgac catgcaggaa tcaggcacca taaatgctgg
                                                                     2940
gctccactga tctagctgga tggagataag gcctacattt ggcccagttt ccccctgcat
                                                                     3000
                                                                     3060
cctctccaqq qcccctqcct catagacaac ctcatagagc ataggagaac tggttgcctg
                                                                    3120
ggggcagggg gactgtctgg atggcaggag tcctcagaga tgccatgtc actgccagga
                                                                     3180
gatgcttctg agcagtacac ctcattggga tcaatgaaaa gcttcaagaa atcttcaggc
                                                                     3240
teactetett gaaggeeaca geeaeggtee ceaeeggaet teeageettg eagteeetgt
                                                                     3300
tectgtagee tagttacegg aacetetgga ggggggcagt ggagteecag etecaggaeg
gatectgteg agaagatate etetggggge tecagecaeg egtecageag gteagggatt
                                                                     3360
                                                                     3420
ccgagatcca tgcttactac aaaagtggat gccaccttgc caggagccac ggtagggccg
ctgtatctgg gagtagggga ctaagagtct gagggtccac aaacggaatt taagaagtag
                                                                     3480
                                                                    3540
gtagccgcgc cctttctgct gcagttttct cttagctatagtaaatcttc ctgagggttt
                                                                     3576
ggtgtctcct agctgaagaa cagaaaaggc tgtgac
<210> 51
<211> 1343
<212> DNA
<213> Homo sapiens
<400> 51
ggcacgaggt caaggcaaaa atgggtcagg tttggagagt tcccccactc cttttgagtg
                                                                       60
                                                                      120
ttcaqqtttt ccttaccatq qctcatqctt tccatcaaqc accaqagttq caqtggcttq
                                                                      180
gcctctggtt ctgggtgagg ttatttgcag gtggagacgg ggggctgcac ctgaacattt
ctagtgtcac cctccctctc cttcatggga aacagctctc cagggaagta ccttcctgcc
                                                                      240
                                                                     300
aggggaagec aaggetggge eggeegeet acaaggagee æaggattge agecatgggt
gccacctttc atggaagggg agatttatgg gctttcctgg aacccccagg ctgtcctggc
                                                                      360
caagaggaaa gaggtggtta cttcaggagt ttgaccttag ttagataact aaaagaatac
                                                                      420
                                                                      480
atttcccctc ccttttcttt atttcctcaa taaaaatgta caaagtatca cccttctcca
                                                                      540
tgccccaatc tgtgttaaag tcacaatcta tgggtgtagt tctggggattc tgtcaaattc
teetteetge tetecaaaat ggacaattgt egtagggace acatgeeece agaatacaat
                                                                      600
                                                                      660
ggcctctgtg ttctactggg gtcaagcctg ctagaactca gcattcatga caggggctaa
                                                                     720
gtgtgcatga agtgacactg actacagcta gaaagcagg cgcacaaatg ccccttcccc
                                                                      780
ccagggccgc tctttccagc gcagtcatcc agaaaggccc acgtgcagag cccctgtgtc
```

1440

```
tcaqatqctq cttcaqttqc ccqtcctqtc ctcaqaqqcc actqtqctqq ccctctatca
                                                                      840
                                                                      900
tttgacctga ctttagaacc tgacctcaag gatatggcag cgctagcctt tagctcccac
                                                                      960
agcacqgatg ggggtgatgc cagttagaag tgggtagtga acgtttgctg agctgttcac
                                                                     1020
tgtttctctc ttctctttgg aagcacctct ccgagccatg tgagccccct gatgccaccg
                                                                     1080
agcaggggca gcttcatgac cgatgtctgg ctgaggctgt ggcggacact ctcggggttg
tctgcaggag agcaagccag gaggacatgggcctggacga cacggcctcg cagcaaagtg
                                                                     1140
                                                                     1200
tgtcagacga gcagtgacgg gcgtgcggcc gggcggggag gctggctccc ccacacctcc
cacctgcatt gctctccctc gtgctcccca aatcaccaca accaaccaat accgcaatcc
                                                                     1260
atgagggact cctcctgtgg aaaaggagag ctgttccaga acacagaact gatctcaggt 1320
ttttgaaaaa aaaaaaaaa aaa
                                                                     1343
<210> 52
<211> 712
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (20)..(20)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (44)..(44)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (56)..(56)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (128)..(128)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (625)..(625)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (692)..(692)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (699)..(699)
<223> n equals a,t,g, or c
<400> 52
tgttgtttgg aattgtggan cggattaaca atttcaccac gggnaaccgg ctttgnccca
                                                                       60
tggattccgc caæggcccga atttacccct tcactaaagg ggaaccaaaa gctggagctc
                                                                      120
caccgcgntg gcggccgctc tagaactagt ggatcccccg ggctgcagga ttcggcacga
                                                                      180
ggtttcctgt cagtgctatt gagattttat tttattaatg tctgcactta gttttacttc
                                                                      240
ctactttcta cttttattga gagttaaacc tgttgaagtc tcagttcaa ttcctcaccc
                                                                      300
```

```
tqaqcaacct aatgttttat gtcttgttct tcctacattt qqttattgaa actgaagttt
                                                                    360
                                                                    420
taggttacca gatttgatag aagcacataa gactacttac tgctttagtc tcaattatta
attgagaaat tatcaattaa caataaggat ttctcttatt tttccccaag ataagttata
                                                                    480
                                                                    540
tatttaaagt gtgttttata gtagaaaggt tttagaatat ttgggttgct acattaattg
aaatggcagc tgaagatgtg atttccagcc agggatttat taaaaaaaaa aaaaaaaaac
                                                                    600
tcgagggggg gccgtaccca atcgncctat agtgagtcgt atacaatcac gggcgtcgtt
                                                                    660
                                                                   712
acacgtegga etggaaacet gegtaceact anegetgem acacecette ge
<210> 53
<211> 1089
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (353)..(353)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (528)..(528)
<223> n equals a,t,g, or c
<400> 53
cggcacqaga aacqcggtgc ttgctcctcc cggagtggcc ttggcagggt gttggagccc
                                                                     60
teggtetgee cegteeggte tetggggeea aggetgggtt teeeteatgt atggeaagag
                                                                    120
                                                                    180
ctctactcgt gcggtgcttc ttctccttgg catacagctc acagctcttt ggcctatagc
                                                                   240
agctgtggaa atttatacct cccgggtgct ggaggctgtt aatgggacag atgctcggtt
aaaatgcact ttctccagct ttgcccctgt gggtgatgct ctaacagtga cctggaattt
                                                                    300
                                                                    360
tegteeteta gaegggggae etgageagtt tgtattetae taccacatag atneetteea
                                                                    402
acccatgagt gggcggttta aagaccgggt gtcttgggat gggaatcctg agcggtacga
tgcctccatc cttctctgga aactgcagtt cgacgacaat gggacataca cctgccaggt
                                                                    480
gaagaaccca cctgatgttg atggggtgat aggggacatc cggctcancg tcgtgcacac
                                                                    540
tgtacgcttc tctgagatcc acttcctggc tctggccatt ggctctgcct gtgcactgat
                                                                    600
gatcataata gtaattgtag tggtcctctt ccagcattac cggaaaaagc gatgggccga
                                                                   660
                                                                    720
aagagctcat aaagtggtgg agataaaatc aaaagaagag gaaaggctca accaagagaa
                                                                    780
aaaqqtctct qtttatttaq aaqacacaqa ctaacaattt taqatqqtaa qgttcacaaa
taggttgatt tctttcttca gctttctgac atgtccagcc catctctaat gaggactccc
                                                                   840
                                                                    900
agatcatcac tttatggctg ttaggtgttt cccatatgaa attagaggag ctgggtcagg
                                                                    960
gagacaaaag tottotatta gtottatgga tagotoctoo ttgagtgtat tttgtgcaaa
                                                                   1020
agattaagaa gctggactct actgccatta aagctgagag aatcctaagg ttaaaaaaaa
1080
                                                                   1089
aaaaaaaa
<210> 54
<211> 1139
<212> DNA
<213> Homo sapiens
<400> 54
acgcgtgggt ccggacgcgt gggcggacgc gtgggagcaa gcccaggcgg cggtggaaag
                                                                    60
                                                                    120
gctggaggac acacctaaac atgtggaatc ccaatgccgg gcagccaggg ccaaatccat
                                                                    180
atcccccaa tattgggtgc cctggaggtt ccaatcctgc ccacccacca cctattaatc
caccetttee eccaggeece tgteeteete ecceaggage teeceatgge aatecagett
                                                                    240
                                                                    300
tcccccagg tgggcccct catctgtgc cacagccagg gtatccagga tgccaaccgt
tgggtcccta ccctcctcca tacccaccgc ctgcccctgg aatccctcct gtgaatccct
                                                                    360
tggctcctgg catggttgga ccagcagtga tagtagacaa gaagatgcag aagaaaatga
                                                                    420
```

```
agaaagctca taaaaagatg cacaagcacc aaaagcacca caagtaccac aagcaggca
                                                                     480
                                                                      540
agcattecte etettectee tectetteca geagtgatte tgactgaata caggeeetgg
                                                                      600
accettecet caagteteae cagttetget eteceateaa getteagatg eeatgttgta
ctgggggaat gtagcccttg tgctccccac cccctaccts cacctgagcc tcaccctgct
                                                                      660
                                                                      720
gttgagccct gagtggctæg gggaaatggg aagaggattg ccatggcctg gccatcttgt
                                                                      780
tgctgcttgg ttagatcata tagctaatga attaggcagg ggagctattt tttgaagatg
                                                                      840
atgaactaaa tgttgaagac aagtttgaga tctgtaaaat gtgatttttt acttccactt
                                                                     900
ataatacttg tgattgggga ggtttgtgga aattcaatta tgatgaaaaacctatctttt
ttgtaatgtt ggcatacttg gggaatttag tggcaaatac attccccagc aggccttttg
                                                                      960
ttggttgcac taactgcaag gttgctggga agtagagtcc atttggttga tgagctttga
                                                                     1020
ctgcggtttt ggaaccttac ctctcctcct tagcccaata tgctgtcttg ggtcctattc
                                                                     1080
aaataaagtt atttctcctg gtcwmaaaaa aacggcacga gcggcacgag ctacgtggg
                                                                     1139
<210> 55
<211> 1222
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (772)..(772)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (796)..(796)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (823)..(823)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (855)..(855)
<223> n equals a,t,g, or c
<400> 55
gaattcggca cgagcacatg wktatatata tattactgtt ttgcctccat tgaacatgcc
                                                                        60
ttctacttcc taatttgtgc cagaattgac tagtagacgc tatgaatgca tcatgctctt
                                                                       120
tggcccattt cgaacactca ggtatgtctg tactcttagt tcatctattc atcattgttt
                                                                       180
ctacagttcc ctcatgcttt aaaaaatata tggcttttat aatttatcca gctttttctt
                                                                       240
                                                                      300
gtcattttaa taagagtatg tgtcttatac aacactaca ttcatcccag aagtagaagc
                                                                       360
aaactattat aatcccatta tttttattcc tactattctc ttttcagaat ttcttttaga
tattccttgg atagttttat tcaatcctcc atggctttca gcttatctta tgttctatct
                                                                       420
tttggttcat attctgcatt ctggataatt cttcatcttc actttctagt ttgttgatat
                                                                       408
                                                                       540
tccttttggt gactataagc tgctctttaa aatggtcaat aatgcctaag atgtttatta
tcttgccctt tgcagaaaaa aattttcagc ttttgctctg gaatgatttt gcatctcttc
                                                                       600
caccaaactt ccagtgtatc aatggccaga aaataatcta tatgttaatt tgttaatttg
                                                                       660
                                                                      720
atggttcatg gttcaaggct gtataattta aaagtttgaa gtcaaacaac acatgatggg
ataatcctga tgttacagat tctcaaggga aaatatgttt ttgttttttc tnccaattgt
                                                                       780
                                                                       840
tctartattt acaganaaac ttcttaatta tactgggttg gtnaataart attttcttw
actotttcaa totangtoca rotatgoato accoottogo tgatgagoat taagaaaato
                                                                      900
caaatttggc ccgggcgcgg tggctcacgc ttgtaatccc agcactttgg gaggccgagg
                                                                       960
cgggtggatc acgaggtcag gagatcgaga ccatcctggc taacacggtg aaaccccgtc
                                                                      1020
tctactaaaa atacaaaaaa aaattagctg ggcgtgatgg cgggcgcctg tagtcccagc
                                                                      1080
```

```
tactcgggag gctgcggcag gagatggcg tgaacccggg aggcggagct tgcagtgagc
                                                                    1140
                                                                     1200
caagattgcg ccactgcact cccgcctggg ccacagagcg agactccgtc tcaaaaaaaaa
                                                                     1222
aaaaaaaaaa aaaaaaactc ga
<210> 56
<211> 367
<212> DNA
<213> Homo sapiens
<400> 56
cggcacgagt gtaaatgtca ccaccaaagg tttgcaccct gatcaaaaag agtatgaaaa
gaataatacc acaacactta tggcctgtct tggaggcctt ctggggatta ttggtgtgat
                                                                      120
atgtcttatc agctgcctct ctccagaaat gaactgtgat ggtggacaca gctatgtgag
                                                                      180
gaattactta cagaaaccaa cctttgcatt aggtgagctt tatcctcctc tgataaatct
                                                                      240
ctgggaagca ggaaaagaaa aaagtacatc actgaaagta aaagcaactg ttataggttt
                                                                      300
accaacaat atgtcctaaa aaccaccaag gaaacctact ccaaaaatga aaaaaaaaa
                                                                      360
                                                                     367
aaaaaaa
<210> 57
<211> 875
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (66)..(66)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (872)..(872)
<223> n equals a,t,g, or c
<400> 57
                                                                      60
ggcacagcgc gaggctgggt cccgcccag gagaaggaag tcgctgaagg cagtggccat
gctggncgtg gaaatgggag gcggttgcag rgggtctatg gggcccggtc ctggatactc
                                                                      120
                                                                      180
ggcaggaagc cgtgtctgca gaggctcctc cctgcctcag gtggccccgt tcaaccccag
ccgtgcccat ctcctgccac cgcctgtcgg tgggggttta aattcggtgt ggcttctgg
                                                                     240
ggtgcagctc agcacccccc cttatgcaga ctgggagggg gtcgggcagt cccctcagcc
                                                                      300
                                                                      360
acgaggaccc tggatgggtt ctagttcact tgggaccgtg gggcctggct gcgtactgag
tgggtgcccc acagtcaagg ccaacggggg ctccccttgc tctgagatgt tgggagaaag
                                                                      420
gcggcttctg gaaccttcg tgggacccgt aagtggctgt ccagaaaggc gggagggtgg
                                                                      480
gcacggggca cggggggcag ctggggtcgt cgttaagggt cacgcatccg tacagttgaa
                                                                      540
                                                                      600
tttcctttct cttatcatgt tttacccacc ttgtcccttt tttccccaat tgtgcttttg
catttttttc cttggcaaat gtaaactcag cctttcattc atgacgtgt aaatttcagt
                                                                     660
ttctctggag tttgtcagac ggcgtgggaa ccacgcctga aactcaggta ataggaggaa
                                                                      720
aaaaaaaaa cttaaaaaaa tttttaaaaa acataaaact actctctacc tctgctggsc
                                                                      780
cagcctgtct cgccctggcc gcggcagggt ggcctgtaac aatttcagtt ttcgcagaac
                                                                      840
                                                                      875
attcaggtat taaaaggaaa aaaaaaaaa anggg
<210> 58
<211> 320
<212> DNA
<213> Homo sapiens
<400> 58
agggcqcacq gccaattqat qqqcatqatc cttqtqctqq cqaqcttcct ggcqcacccq
                                                                       60
```

```
120
qtcqaqqcqc tcqcqcaaqc tqtcqcqctq gqccaqcaqc aactcqcqctqctcgqtqts
                                                                      180
carrgccatg ctgtcgaggg cttcctgcaa ttgcagrcgt gcttcgccgr cttgttcgtg
                                                                      240
ttcgarggcg cgttgctcgc ccatctcggc cacttcttcg tcgagccggg tgcggcgcag
                                                                      300
ggtcagttgc tcgaccttgg ccttgytcgc cgagagctgg gctttcaatt cgccctgctg
                                                                      320
gcgcgcttcg tcctgcaaca
<210> 59
<211> 2777
<212> DNA
<213> Homo sapiens
<400> 59
ggcacgaggg gacatgtctg ggcacaagga aaggcaagca atggaggcag caagagccct
                                                                       60
tqqcaqcaaq tttccatcac ctttqcctqc caqtqtqtqa qagqcqcaqa qqgcagtqa
                                                                     120
gcaggtgaca tgcagcttcc agatacccac acactgcttt tctcccgccc agctcccacc
                                                                      180
                                                                      240
ccagttaatt gagatgggat tgtttctctt tctggtttct tcctaagccc ctctctcata
                                                                      300
ttcctggtgt gcttatggcc tggcacacct tgtgaaacag aaacccaagc tcctcatttc
                                                                      360
ggagctggga tttcgattgg ctatctgcct ccctaaccaa gctgtccctt ccacctcatc
cctagagtca ccctctggtc tcatcaacat ccagtgggca tttcagtggc ccaggatcct
                                                                      420
tcaaattgca gatataaagc atcaggaccc cacacctggg atggaagctt ctaggaatta
                                                                      480
atgaagcccc agtagaggtg agggtaaacc taaaacgggc tggatgggc ctctcccaag
                                                                     540
                                                                      600
gccctatgga aaggtgatgg gaaactgggg gctgaggcct catcctagga gacccctgga
                                                                      660
gggacccact taccctagat aggcagcgga ggccagaaac tggaaaacag ccactcattg
teggtgeatt accgtgagea ceacetgtag ggaetetgtt ggeeteeage egtegteaea
                                                                      720
                                                                      780
cgttcctgac aaccacaaaa gttcatttga gggtgcccag tcagctgact ttgcttccac
caggaatacc cacctggccc tggtccttct gctgagctac aggaggcatt cccagggtct
                                                                      840
                                                                      900
tagcaaaaac aacccctcaa ataggcccag tgcctacaac tctagagagg tttcagatgg
                                                                     960
tattggagac ccagagaagt taactgactt tcccaaaagtcacccactgt aaatggcaga
cagateteaa acceaeatet gageetgagt eeagtgtttt ttetetagta teateattgt
                                                                     1020
                                                                     1080
cccttaaatg tgtttgacac atcatagttt acaaatcacc ttcactcata ttctctcact
actcatcagt catgaattca gccaatgaga agggctcaga gaggttaact aaccagccac
                                                                     1140
                                                                     1200
gctgtttaca tggggcatag actgcttcat gaacgcttga ctgcagcttt gccttcctca
tgccctcaaa aaggaaggag ctgaccaaag cttactatac catagctggg gtctgggacc
                                                                     1260
cccagccagg tctcacagat gatctgggaa tggcctccct gttgctctca ggggtccggc
                                                                     1320
agtcacacag aagagtcagg ttgaaatctt ggcagactt tggtgtggct ttgggaactg
                                                                    1380
ggtttaacct cttggggact tcaccaagac agtggcaaag gacaccacct acagcttcca
                                                                     1440
gtgcctctct actctcccac ctgtgctcct ggggttgaat gagaccagaa gcagctggga
                                                                     1500
                                                                     1560
caagatttgg aaagataaag agagccagga gacaagacct tgagagaagc agaggtctgg
ctggctgctg ccctctggtg gtgacaatgg tgacactgta aacccctctg tcaaggtgac
                                                                     1620
actotocoot gactattoag gagggagaag caatogooco aggacagaga oggggacato
                                                                     1680
                                                                     1740
ccaggagcag ggtacaggct ctagcaatat ccatcttgcg gtactccctc cctcacaaca
                                                                    1800
accagaccac acatgtgtta aatcettetg cagggatgga atgeggetet cagtttttte
                                                                     1860
caagaacttc taatctagga attaggagag gtggtcaaag ctgaatgaag cagtgggcaa
                                                                     1920
agagagggtg agggatggga gagaagacag gtcaaggagg aggtgggaga gaaggggagg
gttgcatgag ggacaaggaa atggcatggg ttggagctgt ccccagtccc tatctggagg
                                                                   1980
                                                                     2040
gacttccaac cttccagatt cccagctgat atcacatgtc caacctcagc caggcgattt
                                                                     2100
ataagagaaa ggtcagggat gccactcccc ttgtaaaagc aaacatgcag catctggaga
                                                                     2160
agcaaggggt agatacaaag attccaaggg gtcaccaaca gctacccaga gaccagcttt
catectatag agaagggtet catactttg ceetteette etteetteet eteteettee
                                                                    2220
tteetteett eetteettee tteetteett eeteetteet teetteette etteetttt
                                                                     2280
tctattctat tgatcattaa ttatggtcaa aacttctcat tttttcagcc aggcagggtg
                                                                     2340
                                                                    2400
gcttaagcct gtaatcccaa cactttggga ggcgaggcag gcagatcact taagttagg
                                                                     2460
agtttgagac cagactgggt gacatggcaa aaccctgtct ctttaaaaac aaaaattaag
                                                                     2520
gccgggcgtg gtggctcatg cctgtaatcc cagcactttg ggaggccgag gcaggcgaat
                                                                     2580
cacgaggtca gaagatcgag accatcctgg ctaacatggt gaaaccctgt ctctactaaa
aatacaaaaa attagctggg tgtggtggcg ggcgcctgta gtcccagcta ctcgggaggc
                                                                     2640
                                                                     2700
tgaggcagga gaatggcgtg aacccgggag gcggaacttg cagtgagccg agattgcgcc
```

```
2760
                                                               2777
aaaaaaaaa aaaaaaa
<210> 60
<211> 710
<212> DNA
<213> Homo sapiens
<400> 60
ggcacgagct gggcctccag gttcttcacc tgtcacatga tcattttaca tattgtggtc
                                                                  60
                                                                 120
tgtttattta ccatcagcat catagaagag caaaaagaag aaatactgtg ctccactaaa
agccaggctg agaaaacagt tactcacatt gagcagtgag tgaccactag gtgggcattt
                                                                 180
gttcatagct gcatggagaa caagtgccca tatacatctt tctgctgatg cagcctctaa
                                                                 240
                                                                 300
attttgaatg catcagtttt ttaaactgca ttgagcaata ttccgtgggt gtgatccata
atagcgtaac tatttacgcc tgtgacagag aggaaaactg tatggatatc <code>gatatcttt</code>
                                                                360
                                                                 420
aagagctttt taatctttaa tcaagttagt acttcttaag gatgattaag gccaggcagt
ggctcacacc tgtaatccca gcattttggg aggccaagat gggtggatcc cttaaggtca
                                                                 480
                                                                 540
agagttcaag gccatcctgg ccaacatggt gaaaccccat ctctactaaa aatacaaaaa
ttagctgggg tgtggtggca ggcgcctgta accccagcta ctcaagaggc tgagacaaga
                                                                 600
gaatcgcttg aagccaggag ttggagattg cagtgagcca agatcatgcc acttcactcc
                                                                 660
                                                                 710
<210> 61
<211> 1540
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (651)..(651)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1124)..(1124)
<223> n equals a,t,g, or c
<400> 61
agaattegge acgagggeat attactttee taggactgee acaacaaact attaccaact
                                                                  60
agcqqcttaa aacaacaaga qcttattcct cacagttctg gagqccagaa gtccaaaacc
                                                                 120
aaggtgtcag gaaggtcatg ctctctccaa agtctccaag gatgctcctt ccttgcctcc
                                                                 180
                                                                 240
tccagcctct ggtcgtggcc aacatcccga gggttccttg gcttgcagat gaatcactta
                                                                300
360
cctttcctac aaggacatta gtcactggat tatgacacag ctcatcttaa ctggattata
                                                                 420
tctgcaaaga ccctgttata tctgcaaaga cgagttaaca ttcacatgtt ccaggggaga
tatgaatttt aaggggacag tattggaccc agtataggag ggcaggcagc agcgagggag
                                                                 480
                                                                 540
ccagggaggg ctggcctgac ttgagcctgt ttgaaaagca tcatcctcct accaagactg
ggggctgctg gttctgacaa ggtttgcagg atcagctggg atgatgggtt scamccaytc
                                                                 600
                                                                 660
cttcgagyta cgttggaccc ctgggcccac ttacagcaag gagcttgccc ntycgtgtag
                                                                720
ctctycgtca gtgtgggaaa atctgartga gccagagaag ggtgagattc cccctgcaga
                                                                 780
gcaggcagta ctgagcaaat ccaggatcca gaactccagt tctaatcctg gctcttgcct
gctttcctgt gtgaccctgg ggaagtggtt ttccctctct gagactctcc ttccccatgt
                                                                 840
gagtcacaag ggctgggcct agctgacccc caaggccctt acatgagtgg atagttgcat
                                                                 900
                                                                 960
tttaaacctq gtqctcccca ggataaqqqa qtcaacccca aggaqactqg ggtttctcct
gagcctqqcc cctqqqqatq aqcactcact qtqqaaaaaq ctqqccactt cttaqccctt
                                                                1020
                                                                1080
gtcatgggca gaaaacatgc ccctccagcc ccaccagcac caacacacag ccaagctcac
tgtttcattt ttagagagaa atcagggctt tcggtgcagc tgantgacac agacaagggg
                                                               1140
```

```
1200
cggggggaca tgaaagggag cgggcaagga cggaaattac acttctccta gcaacctggt
                                                                     1260
tctgcagctc ctaggcctgg ggccgcgtga tacatgccat tcccaattaa cgggatgtta
aatatacccc ggctcagcct gccccatgct gagccccgcc tggggcagtg cagggagcca 1320
tgtgatggtg tagagcactc tgcaacaccc catattcatg ttcccactcc tagggccccg
                                                                     1380
                                                                     1440
ctcggtcccc aggaggccag agcggtcctg ccctctgcct gagcatggct cagctccagc
                                                                     1500
ctccacttgc cctcccctat gctggccagc tcgggggtct gcaggcagcc tgtggggcag
                                                                    1540
ggccagttgg ccaaactctc caæccagaa gcccctcgag
<210> 62
<211> 1421
<212> DNA
<213> Homo sapiens
<400> 62
ggcagaggga gcggagagcg tgctaaccaa tgacttgagg gagtaggggg ccgggtttgg
                                                                       60
gccctcagtt gctaagggct acccgagtgg gaagcggttc aagagatggg gtgaagggtg
                                                                    120
gttcaccggt tcttcaagtc ctcagccttc tggcccgmgg aagttaagca accaagaggc
                                                                      180
                                                                      240
gggcctaaga ccggaagcag gaaggaggc gcaggaagca gggcgccgca gcctgtcgta
                                                                      300
eggteettet gtgggtetgt eggtgeegag ggeaggatgg agaagetgeg geteetggge
ctccgctacc aggagtacgt gactcgtcac ccggccgcca cggcccagct ggagacagca
                                                                     360
                                                                      420
gtgcggggct tcagttacct gctggcaggt cgattcgccg attcgcacga gctgtcagag
                                                                      480
ctggtgtact ctgcctctaa cctgcttgtg ctgctcaatg acgggatcct acggaaggag
cttcggaaaa agttgcctgt gtcgctgtcc cagcagaagc tgctgacatg gctggcgtg
                                                                     540
                                                                      600
ctggagtgcg tggaggtgtt catggagatg ggagctgcca aggtgtgggg tgaagtgggc
                                                                      660
cgctggcttg tcatcgccct catccagctg gccaaggctg tactgcggat gctcctgctg
ctctggttca aggctggcct ccagacttca ccccctatcg ttccactgga cagagagacc
                                                                      720
aggcacagec cccggatggt gaccacagec ywggyaacca tgagcagtec tacgtgggga
                                                                     780
ageggteaaa eegggtggtg egaaceetee agaacaegee gteeetgeae teeaggeaet
                                                                      840
                                                                      900
ggggagetee ceageagegg gagggaegge ageageagea teaegaggag etgagtgega
cccccaccc cctggggctt gcaggagacc atcgcagagt ttttgtacattgcccggccg
                                                                     960
                                                                     1020
ctgctgcact tgctcagcct gggcctktgg ggtcarargt cgtggaaacc ctggctcttg
gctggtgttg tggacgtgac cagcctgagc ctcctgagtg acagaaaggg cctgacccgg
                                                                     1080
arggagegge gggagetgeg gegeeggame atcetgetge tetaetaeet getgegetet
                                                                     1140
cettletacg accettete egaggecagg atcetettee tgetecagtt getggeegae
                                                                     1200
                                                                     1260
cacgtccctg gcgttggcct ggtcacaagg ccgctcatgg attacttgcc cacctggcag
aaaatctact tctacagttg gggctgacag actcccggaa ggagggtgtg gggaggggtg
                                                                     1320
ggcagggagc ccctcttccc taataaaact gactccggca gcaaaaaaa aaaaaaaaa
                                                                    1380
                                                                     1421
aaaaaaaaa aaaaaaaaa aaaaaaaaa aaagggcggc c
<210> 63
<211> 1477
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (7)..(7)
<223> n equals a,t,g, or c
<400> 63
tgcaggnacc ggtccggaat tcccgggatc aaacagtact gttgcacgtc gaattaagga
                                                                       60
                                                                      120
tctagctgct gacattgaag aagagcttgt ttgtagactg aaaatttgcg atgggttttc
                                                                      180
actgcaacta gatgaatcag ctgatgtttc aggacttgct gtgctgcttg tgtttgttcg
ttataggttt aataagtcta ttgaggaaga cctactcctg tgtgaactt tgcaaagtaa
                                                                     240
tgctaccggt gaagaaatat tcaactgtat caacagtttt atgcagaaac atgaaattga
                                                                      300
atgggaaaaa tgtgttgatg tttgtagtga tgcttctagg gcagtggatg ggaaaattgc
                                                                      360
cgaagctgtc accttaataa aatatgtggc tcccgaaagc accagtagtc actgcctatt
                                                                      420
```

```
atacaqacat gcactqqcaq ttaaaataat qcctacatct ctaaaaaaatg tgctagacca
                                                                    480
                                                                    540
ggcagtacaa atcatcaatt atattaaagc tcgaccacat caatccagac tattaaaaaat
                                                                    600
660
gctttctcga ggtaaagttc ttgtaagact ttttgaacttcgtcgtgaac ttttggtttt
                                                                    720
catggattct gcttttcgac tatctgattg tttaacaaat tcatcttggc tgctaagact
                                                                    780
tgcatatctt gcagatattt ttactaaatt aaatgaagtt aatttgtcaa tgcaaggaaa
aaatgtgacc gtttttacag tatttgataa aatgtcgtca ttgttaagaa aattggaatt
                                                                    840
                                                                    900
ttgggcctca tctgtagaag aagaaaactt tgattgtttt cctacactca gtgatttttt
                                                                    960
qactqaaatt aattctacag ttgataaaga tatttgcagt gccattgtgc agcacctaag
                                                                   1020
gggtttgcgc gctactctgt taaaatactt tcctgtaaca aatgacaata atgcttgggt
                                                                   1080
tagaaatcca tttacagtta ctgttaaacc agcttatta gtagcacggg actatgagag
cctgattgat ttaacatctg attctcaagt gaagcaaaat tttagtgaac tttcactaaa
                                                                   1140
tgatttttgg agtagcctaa ttcaggaata cccaagcatt gcaaggcgtg cagtgcgtgt
                                                                    1200
acttetteet tttgetacaa tgeacetgtg tgaaaegggg tttteatatt aegetgeaae
                                                                    1260
aaaaacaaaa tataggaaaa qacttgatgc tgcacctcat atgcgaatcc gacttagcaa
                                                                    1320
                                                                   1380
tattacacct aatattaagc ggatatgtga taaaaagaca caaaaacact gttctcatta
                                                                   1440
aaattggagg agtttgcatg tctcatgata accaaatgta agatgaaaat aaaagatgat
                                                                   1477
ttacttcaaa aaaaaaaaaa aaaaaaagggcggccgc
<210> 64
<211> 3447
<212> DNA
<213> Homo sapiens
<400> 64
accaattccc ttcctgggag ttgcggcttc cctcgctcgg ccccactccc gtttaccctt
                                                                      60
tececaqete eegeettage eaggggette eeegeetgee getagggete gggeegaage
                                                                     120
                                                                     180
gccgctcagc gccagcctgc cgctccccgg gctccacttt cactttcggt cctgggggaa
                                                                     240
ctaagccgga ggcagtggtg gtggcggcgg cgcaagggtg agggcggccc cagaacccca
                                                                    300
ggtaggtaga gcaagaagat ggtgtttctg cccctcaaat ggtcccttgc aaccatgtca
                                                                    360
tttctacttt cctcactgtt ggctctcttaactgtgtcca ctccttcatg gtgtcagagc
                                                                     420
actgaagcat ctccaaaacg tagtgatggg acaccatttc cttggaataa aatacgactt
cctqaqtacq tcatcccagt tcattatgat ctcttgatcc atgcaaacct taccacgctg
                                                                     480
                                                                   540
accttctggg gaaccacgaa agtagaaatc acagccagtc agcccaccag caccatcatc
                                                                     600
ctgcatagtc accacctgca gatatctagg gccaccctca ggaagggagc tggagaggg
ctatcggaag aacccctgca ggtcctggaa caccccctc aggagcaaat tgcactgctg
                                                                     660
                                                                     720
gctcccgagc ccctccttgt cgggctcccg tacacagttg tcattcacta tgctggcaat
                                                                    780
ctttcggaga ctttccacgg attttacaaa agcacctaca gaaccaagga aggggaactg
                                                                     840
aggatactag catcaacaca atttgaaccc actgcagcta gaatggcctt tccctgcttt
                                                                     900
gatgaacctg ccttcaaagc aagtttctca atcaaaatta gaagagagcc aaggcaccta
                                                                    960
gccatctcca atatgccatt ggtgaaatct gtgactgttg ctgaaggact catagagac
                                                                    1020
cattttgatg tcactgtgaa gatgagcacc tatctggtgg ccttcatcat ttcagatttt
                                                                    1080
gagtctgtca gcaagataac caagagtgga gtcaaggttt ctgtttatgc tgtgccagac
                                                                    1140
aagatgaatc aagcagatta tgcactggat gctgcggtga ctcttctaga attttatgag
gattatttca gcataccgta tcccctaccc aaacaagatc ttgctgctat tcccgacttt
                                                                   1200
                                                                    1260
cagtctggtg ctatggaaaa ctggggactg acaacatata gagaatctgc tctgttgttt
                                                                    1320
gatgcagaaa agtcttctgc atcaagtaag cttggcatca caatgactgt ggcccatgaa
ctggcccacc agtggtttgg gaacctggtc actatggaat ggtggaatgatctttggcta
                                                                   1380
aatgaaggat ttgccaaatt tatggagttt gtgtctgtca gtgtgaccca tcctgaactg
                                                                    1440
                                                                    1500
aaagttggag attatttctt tggcaaatgt tttgacgcaa tggaggtaga tgctttaaat
tcctcacacc ctgtgtctac acctgtggaa aatcctgctc agatccggga gatgtttgat
                                                                    1560
                                                                   1620
gatgtttctt atgataaggg agcttgtatt ctgaatatgc taagggagta tcttagcgct
                                                                    1680
gacgcattta aaagtggtat tgtacagtat ctccagaagc atagctataa aaatacaaaa
                                                                    1740
aacgaggacc tgtgggatag tatggcaagt atttgcccta cagatggtgt aaaagggatg
gatggctttt gctctagaag tcaacattca tcttcatcct cacatggca tcaggaaggg
                                                                   1800
gtggatgtga aaaccatgat gaacacttgg acactgcaga ggggttttcc cctaataacc
                                                                    1860
atcacagtga gggggaggaa tgtacacatg aagcaagagc actacatgaa gggctctgac
                                                                    1920
```

```
1980
ggcgccccgg acactgggta cctgtggcat gttccattga cattcatcac cagcaaatcc
                                                                   2040
gacatggtcc atcgattttt gctaaaaaca aaaacagatg tgctcatcct cccagaagag
                                                                   2100
qtqgaatgga tcaaatttaa tgtgggcatg aatggctatt acattgtgca ttacgaggat
qatqqatqqq actctttqac tqqcctttta aaaqqaacac acacaqcaqt caqcaqtaat
                                                                   2160
qatcqqqcaa qtctcattaa caatqcattt caqctcqtcaqcattqqqaa qctqtccatt
                                                                  2220
                                                                   2280
gaaaaggcct tggatttatc cctgtacttg aaacatgaaa ctgaaattat gcccgtgttt
                                                                   2340
gtggaaactc aattcaaggc cttcctcatc aggctgctaa gggacctcat tgataagcag
                                                                   2400
acatggacag acgagggctc agtctcagag cgaatgctgc ggagtgaact actactcctc
                                                                   2460
                                                                   2520
gcctgtgtgc acaactatca gccgtgcgta cagagggcag aaggctattt cagaaagtgg
aaqqaatcca atggaaactt gagcctgcct gtcgacgtga ccttggcagt gtttgctgtg
                                                                   2580
ggggcccaga gcacagaagg ctgggatttt ctt\atagta aatatcagtt ttctttgtcc
                                                                   2640
agtactgaga aaagccaaat tgaatttgcc ctctgcagaa cccaaaataa ggaaaagctt
                                                                   2700
                                                                   2760
caatggctac tagatgaaag ctttaaggga gataaaataa aaactcagga gtttccacaa
attettacae teattggeag gaacceagta ggatacceae tggeetggea atttetgagg
                                                                   2802
aaaaactqga acaaacttgt acaaaagttt gaacttggct catcttccat agcccacatg
                                                                   2880
gtaatgggta caacaaatca attctccaca agaacacggc ttgaagaggt aaaaggattc
                                                                   2940
                                                                   3000
ttcagctctt tgaaagaaaa tggttctcag ctccgttgtg tccaacagac aattgaaacc
                                                                   3060
attgaagaaa acatcggttg gatggataæg aattttgata aaatcagagt gtggctgcaa
agtgaaaagc ttgaacgtat gtaaaaattc ctcccttgcc aggttcctgt tatctctaat
                                                                   3120
caccaacatt ttgttgagtg tattttcaaa ctagagatgg ctgttttggc tccaactgga
                                                                   3180
gatacttttt tcccttcaac tcattttttg actatccctg tgaaaagaat agctgttagt
                                                                  3240
                                                                   3300
ttttcatgaa tgggctatcg ctaccatgtg ttttgttcat cacaggtgtt gccctgcaac
                                                                   3360
gtaaacccaa gtgttgggtt ccctgccaca gaagaataaa gtaccttatt cttctcattt
                                                                   3420
tatagtttat gcttaagcac ccgtgtccaa aaccctgtac cccatgttta tcattcataa
                                                                   3447
actgtttcat cagtctcaaa aaæaaa
<210> 65
<211> 2312
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2312)..(2312)
<223> n equals a,t,g, or c
<400> 65
gcccttgtag gtgacactat agaaggtacg cctgcaggta ccggtccgga attcoppgt
                                                                    60
cgacccacgc gkscgggggc tgaggggctg ccatggcggc ggcgggccgg ctcccgagct
                                                                    120
                                                                    180
cctgggccct cttctcgccg ctcctcgcag ggcttgcact actgggagtc gggccggtcc
                                                                    240
cagcgcgggc gctgcacaac gtcacggccg agctctttgg ggccgaggcc tggggcaccc
ttgcggcttt cggggacctc aactccgaca agcagacgga tctcttcgtg ctgcgggaaa
                                                                    300
                                                                    360
gaaatgactt aatcgtcttt ttggcagacc agaatgcacc ctattttaaa cccaaagtaa
aggtatcttt caagaatcac agtgcattga taacaagtgt agtccctggg gattatgatg
                                                                    420
                                                                   480
gagattctca aatggatgtc cttctgacat atcttcccaa aaattatgccaagagtgaat
                                                                    540
taggagctgt tatcttctgg ggacaaaatc aaacattaga tcctaacaat atgaccatac
                                                                    600
tcaataggac ttttcaagat gagccactaa ttatggattt caatggtgat ctaattcctg
atatttttgg tatcacaaat gaatccaacc agccacagat actattagga gggaatttat
                                                                    660
catggcatcc agcattgacc actacaagta aaatgcgaat tccacattct catgcattta
                                                                    720
ttgatctgac tgaagatttt acagcagatt tattcctgac gacattgaat gccaccacta
                                                                    780
                                                                    840
gtaccttcca gtttgaaata tgggaaaatt tggatggaaa cttctctgtc agtactatat
                                                                   900
tggaaaaacc tcaaaatatg atggtggttg gacagtcagc atttgagac tttgatggag
                                                                    960
atggacacat ggatcattta ctgccaggct gtgaagataa aaattgccaa aagagtacca
                                                                   1020
tctacttagt gagatctggg atgaagcagt gggttccagt cctacaagat ttcagcaata
agggcacact ctggggcttt gtgccatttg tggatgaaca gcaaccaact gaaataccaa
                                                                   1080
ttccaattac ccttcatatt ggagactaca atatggatgg ctatccagac gctctggtca
                                                                   1140
```

```
1200
tactaaagaa cacatctgga agcaaccagc aggccttttt actggagaac gtcccttgta
                                                                    1260
ataatgcaag ctgtgaagag gcgcgtcgaa tgtttaaagt ctactgggag ctgacagacc
                                                                   1320
taaatcaaat taaggatgcc atggttgcca ccttctttgacatttacgaa gatggaatct
                                                                    1380
tggacattgt agtgctaagt aaaggatata caaagaatga ttttgccatt catacactaa
aaaataactt tgaagcagat gcttattttg ttaaagttat tgttcttagt ggtctgtgtt
                                                                    1440
ctaatgactg tcctcgtaag ataacaccct ttggagtgaa tcaacctgga ccttatatca
                                                                    1500
                                                                    1560
tgtatacaac tgtagatgca aatgggtatc tgaaaaatgg atcagctggc caactcagcc
                                                                    1620
aatccgcaca tttagctctc caactaccat acaacgtgct tggtttaggt cggagcgcaa
                                                                    1680
attttcttga ccatctctac gttggtattc cccgtccatc tggagaaaaa tctatacgaa
aacaagagtg gactgcaatc attccaaatt cccactaat tgtcattcca taccctcaca
                                                                   1740
                                                                    1800
atgtccctcg aagttggagt gccaaactgt atcttacacc aagtaatatt gttctgctta
ctgctatagc tctcatcggt gtctgtgttt tcatcttggc aataattggc attttacatt
                                                                    1860
ggcaggaaaa gaaagcagat gatagagaaa aacgacaaga agcccaccgg tttcattttg
                                                                    1902
                                                                    1980
2040
aacacaaatt ctggcttgaa aaaatagggg agattaaata ttatttataa atgatgtatc
                                                                    2100
ccatggtaat tattggaaag tattcaaata aatatggttt gaatatgtca caaggtcttt
ttttttaaag cactttgtat ataaaaatt gggttctcta ttctgtagtg ctgtacattt
                                                                   2160
                                                                    2220
ttgttccttt gtggaatgtg ttgcatgtac tccagtgttt gtgtatttat aatcttattt
gcatcatgat gatggaaaaa gttgtgtaaa taaaaataat taaatgagca ggaaaaaaaa
                                                                    2280
aaaaaaaaa aaaaaaaaaa aaaacaaaaa an
                                                                  2312
<210> 66
<211> 3037
<212> DNA
<213> Homo sapiens
<400> 66
                                                                      60
aattcggcag agcctaggag gagaaagttc catcatgtcg gagatcagag gaaaacccat
tgagtccagc tgtatgtatg gcacctgctg cctctgggga aagacttatt ccatcggatt
                                                                     120
tetgaggtte tgeaaacagg ceaccetgeagttetgtgtg gtgaagceae teatggeggt
                                                                    180
                                                                     240
cagcactgtg gtcctccagg ccttcggcaa gtaccgggat ggggactttg acgtcaccag
tggctacctc tacgtgacca tcatctacaa catctccgtc agcctggccc tctacgccct
                                                                     300
ettectette taettegeea eeegggaget geteageeee taeageeeeg teeteaagtt
                                                                   360
cttcatggtc aagtccgtca tctttctttc cttctggcaa ggcatgctcc tggccatcct
                                                                     420
                                                                     480
ggagaagtgt ggggccatcc ccaaaatcca ctcggcccgc gtgtcggtgg gcgagggcac
cgtggctgcc ggctaccagg acttcatcat ctgtgtggag atgttctttg cagccctggc
                                                                     540
                                                                    600
cctgcggcam gccttcamct acaægtcta tgctgacaag aggctggacg cacaaggccg
ctgtgccccc atgaagagca tctccagcag cctcaaggag accatgaacc cgcacgacat
                                                                     660
cgtgcaggac gccatccaca acttctcacc tgcctaccag cagtacacgc agcagtccac
                                                                     720
                                                                   780
cctggagcct gggccacct ggcgtggtgg cgcccacggc ctctcccgct cccaægcct
                                                                     840
cagtggcgcc cgcgacaacg agaagactct cctgctcagc tctgatgatg aattctaggt
                                                                     900
gegggetgea gtggeggaag tgetggegee atageeaegg teaggetgtg eeceaeetee
                                                                     960
agecteacea ecaggecagg aggeagetgg cacagtgete aegecgeett tatttattgg
                                                                   1020
accagaaaca ctcacatgtc gcttccagag gaacggggga cagccaggct cgcccatggg
ccttcaggaa tatttataca tggcccagcc tgcactgccc gggcgagggc agaggacact
                                                                    1080
                                                                    1140
gggagcaagg cttatgcccc tgctgcccgt cctgtgctgg gggcatgctg ggaccagccg
                                                                   1200
cacccaggee ccaatgettg tgtgtggace ageggetgea geettetageeceteeteee
cgcgagactc tcaggctgag gtcggcaagc cgtggctccc ccacacaccg tgcaataccc
                                                                    1260
tgtctgacct gggctcttcc cgcctgcatc cctyccctgt ccacctttgt ccagtgctag
                                                                    1320
atteacetea eccegggeag gagtggggat gtggggete tgtggteete eccteetgae
                                                                    1380
ccaggcctct gtggcatgct gcaaggatca gagccagaca ccaggagtca caggccccac
                                                                   1440
                                                                    1500
ccaggaaggg cattcagggc ccctgggcac cgcttctgtt gaagcagggg cttctgggcc
cctgggtatc cccacctgtc gtggccacac ctctgcctgc ctcatgcccc ttccccctgg
                                                                    1560
                                                                   1620
cctaccaagg acagcccaca gcccgcactg ccggctcact tgggccttc ctcgatagct
                                                                    1680
ttgggcagag cccttgcttc ctggctgctt cagggctcag gggctcccag ccctccttcc
caggctgatg ctgggtcctc tctctctttg gggcttctcc ctcccgtttc aggggaaagg
                                                                    1740
tctgagtctc cacgtttcag accagcttct gggggaaggc agtccggcag ggagaccggg
                                                                    1800
```

```
1860
aggggtggcc acacagtggg gagctgggag gtggggggaa tggtcccaga ctcctctcgg
ggcccctatc cacacagggc ctggtgttct accccatctg gcccctggcc catctcttct
                                                                    1920
gtgccttagt cacatatgaa agcgcccctc cctggctccc catctgtccc acacgctccc
                                                                    1980
tggggctctt agttcagctg ctggcactcg caggatcct cagtgctggg cccagagccc
                                                                   2040
ttggacaggc ctcaggagtg gtcaggacca ccaagcccct cctctccccc tccacacctc
                                                                    2100
tagacctggg gcctccggaa cccccagcag gctgggctta tactagctcc tgacttagga
                                                                    2160
agagectegt gteacaacae gtgteectae aggeaaagtg teetggeatt taaaaceeag
                                                                    2220
attatccctg ggtttgggct gcagtcacct ggagaagctg gtagggtaag ggagagggac
                                                                    2280
cctgccggtg ttcactgggg attctttctt ttggtccttc ctggaatgaa caggttccct
                                                                    2340
                                                                    2400
ccctgccacc tgtgaggaga gttggggccc agccgtcttc ctggcctcct tcctttcctc
gtggcagagg cctgcatgtg ggtgccagag gc@gctctc cccctccatc ttgggggggc
                                                                   2460
qqaqcaqttq ggcccaagct gcccgggagg gtgggtgcag acacaggctg aggaccagcc
                                                                    2520
                                                                    2580
ctggccctgc cccgccatct gctttcacca agctgtctct ccaccgtggc ttcccttctc
                                                                    2470
cctccaggcc aaagtgctgc tgattcccac tcccttggtt ttcgcctgcc cagcgttgct
                                                                    2700
gtttgcgtgg agggtggggg gagctcagtg gcagggaatc agcggtccgt ggggtcgtgg
                                                                    2760
ggacgggaac atgtgcccga ccgctccatc ccctcctc ccttaggatg cataacctac
                                                                    2820
cttgtctttt tttttttaaa ttttctttcc aggtagagta gctctttgta cataaagaat
                                                                   2880
acttgaaaaa ttaattgtat gatgtatgag aagacagagt ctcctagttt tgtatcttgt
tgtatgactg ccatgagttc caccagaaag ccactctatt ttggtctctg tgacatttta
                                                                    2940
                                                                    3000
3037
aaaaaaaaa aaaaaaaaa aaaaaaaggg cggccgc
<210> 67
<211> 767
<212> DNA
<213> Homo sapiens
<400> 67
                                                                      60
catgaaaaca cattctctta tagtttttaa attcatcatc caagagttcc tgctctttga
                                                                     120
tgatgagaca tacctggtag actccaaaac agagagcaga cgcctagtat ctttgttctg
gggtgtgcat taagagtaca ttgacctgtctgtctccagt cttgactctt ttggaagaga
                                                                     180
                                                                     240
gatgctagta ctgatgacaa cctgcattct ggctgcggtg tgygtccaca ctgcacagtg
tgcaccagac tctcgtatgg acaatgactg tccctcacat caggcgcaga tccattttag
                                                                     300
                                                                    360
agcctcagaa gtcaggagag ggtggacttt caaccacgac tgaaaacact gtctttctta
                                                                     420
ggacatgctg tgtgtatgac acacttacag atgtctgtgc tcactgatgc ttgttgatgt
gtcatcgcac atcagtgaca aacatttgtc atgtttttgc ctttggtgga acttctttat
                                                                     480
tatactcact ttcctcccaa accatttttc tcaacttcat catgaagcaa atgtcatgtg
                                                                     540
gtcattctgt gatggggctc agggctaggt taggtgatga tttctgaaag ctcagagacg
                                                                     600
tgaaggaaaa aggacatcag tgcttggatc ttagctctta taagcctcac gtgcaacaat
                                                                     660
aaacccgagt tcaagaatca gattcttaga tagattggtt tggtagcaaa tgacaaaaaa
                                                                     720
ccaacgtaaa tatgcttcgg caaaaaaaaa aaaaaaaaag ggcggcc
                                                                    767
<210> 68
<211> 1256
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
\langle 222 \rangle (107\overline{9})..(1079)
<223> n equals a,t,g, or c
<400> 68
gggacaagtc cacgtatatc gagtcctcga aggataggcg ggggaagatt cctgccaccc
                                                                      60
tgtgctctcg gtccagccgg acgtccatga ccttgggtgg caggaatctt cccccgccta
                                                                     120
                                                                     180
tccttcaagg acaagtccac gtatatcgag tcctcgacca aagtgtatga tgatatggca
                                                                     240
ttccggtacc tgtcctggat cctcttcccg ctcctgggct gctatgccgt ctacagtctt
```

```
ctgtacctgg agcacaaggg ctggtactcc tgggtgctca gcatgctcta ggcttcctg
                                                                300
ctgaccttcg gcttcatcac catgacgccc cagctcttca tcaactacaa gctcaagtct
                                                                 360
                                                                 420
gtggcccacc ttccctggcg catgctcacc tacaaggccc tcaacacatt catcgacgac
                                                                 480
ctgttcgcct ttgtcatcaa gatgcccgtt atgtaccgga tcggctgcct gcgggacgat
gtggttttct tcatctacct ctaccaacgg tggatctacc gcgtcgaccc cacccgagtc
                                                                540
aacgagtttg gcatgagtgg agaagacccc acagctgccg cccccgtggc cgaggttccc
                                                                 600
                                                                 660
acagcagcag gggccctcac gcccacacct gcacccacca cgaccaccgc caccagggag
qaqqcctcca cgtccctgcc caccaagccc acccaggggg ccagcttgc cagcgagccc
                                                                720
caggaagccc ctccaaagcc agcagaggac aagaaaaagg attagtcgag actggtcctc
                                                                 780
840
                                                                 900
tgtcgccctt tccctggaca gatcaggccg gggcggtggg aggcccgcct caggtcaggg
cccagcgtgt gacgtagggg ccggggcagg ccagggtttg tttgtggagg cgctgtctgt
                                                                 960
ccctctgtcc ctctgtgttt ccagccatct cgccctgcca gcccagcacc actgggaatc
                                                                1020
                                                                1080
atggtgaagc tgatgcagcg ttgccgaggg ggtgggttgg gcgggggtgg ggccgggcnc
                                                               1140
ccctacggga tgcccacggc cgttcatcat cttgtccctcgtccccctac cacactcccc
                                                                1200
ctcctagacc gccgcccttt aacacagtct ggatttaata aattcatatg ggtgtttaac
                                                                1256
<210> 69
<211> 1057
<212> DNA
<213> Homo sapiens
<400> 69
                                                                  60
togaccoacg cgtccgctga gattacaggt gtgagccacc aggctcagcc ccctaagatt
tqaaacactt taaatqqccc atqqtaqqqt tcctqctaqq ataaaacatt aaqcgqctqt
                                                                 120
                                                                 180
taaaagaaat aaaaggagga cacgtctctg tgcactggtg tggacaaatc tccaagtcac
                                                                240
tgcaaaatgg aaaaagtata agatgctctt tccctgaacc taagggtcc cgccctctc
                                                                 300
actttcaggt ctctggacct ctgactgaca ctgtgcctgc ccaggtccct gtatgcactg
                                                                 360
ccacagtgcc ctgggcccca tgtccacccc tgtcctgccc ttctctggga tagggctggc
                                                                 420 .
cttcctctgc ctctgcctgg ctgcatccat ggtcgatctc aagtgccttg gcatgaactc
cacteteetg cageetteaa teaaggaatg atggggatgt gtacatacce caceecacee
                                                                 480
cttggcaggg tgatgctgag gtgtggattt ttaacagttc ccagactttc ccaggaggct
                                                                 54.0
                                                                 600
tgggtttggg tgcccacagt gggagctggt gtgatatcat accttcgccg gccgcctttc
                                                                660
cttcctqttc tctqtgcccc tactcccact ctaga@tgc cccqtttctc tgttttcgtg
aaagagetga ceetgtgetg ceteceacte teceaatgee eetgeeacte etgtgageet
                                                                 720
gctgctggtg aggtcggtgc tgacctctgt gttgctggat aatgagtcat ctatctctgg
                                                                 780
aggagaagaa aggcaggtcc tccacagccc tgataaaatc tccaagtctc ccagtttcgg
                                                                 840
qtccctctcc tqqqatqcaq acccactqcc tqcccagctq qtacqatcca catqcctct
                                                                 900
tcttgggaat aggggcatgg gaaagtgact aaagatactg ttctggctgc tgtgttcact
                                                                 960
                                                                1020
1057
aaaaaaaaa aaaaaaaaa aaaaaaaggg cggccgc
<210> 70
<211> 2683
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2640)..(2640)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2676)..(2676)
<223> n equals a,t,g, or c
```

```
<400> 70
acaasgtmac gcctgacagg tmaccggatc cgggaattcc cgggtcgacc cacggcgtcc
                                                                       60
qcatttqcaa taacaqaaaa qqaattqcat qtatqaaqtt ttcaatcqtq qqcttttctt
                                                                      120
tqttqtqqqq aqgqqtcqq qqqataqttt qatttccatt ttctqaaaac gacaqacttq
                                                                      180
                                                                     240
gattctgttt gtgtgtgcat atttatcca gccttaagtt ataaagctca tctgtcccgc
tgcattccct gtgtattttc aggacatggc tcgtgggtgt gtgttgttcat tgtgtgcgtc
                                                                      300
tgtatgtatt tttctgtcat cactgttccc tctcctcccg agtgtgcatt cagttaatat
                                                                      360
aatcagttgc ttgcttcttt caaagtgctt tgaaggtctt gaactcatgt gt#gcatct
                                                                     420
                                                                      480
ttatcaacta tcccaattgc atgttctcca tcacatattc tcttatttgc tctgtacccc
ctgagaatat gttttagaga tattggaata aagctgtctg ggtaaggagt aggcttagcc
                                                                      540
gacctatgaa taatacactt tagtctagtt ctttattcta aatctggatt gccagtattg
                                                                      600
tgtatttaaa ccaagtctgt gaatacctgc tttttttggc cacagagtaa caagttttca
                                                                      660
                                                                      720
tgtaagatct tcataccaaa gtaggaagta aaaatagctt agaaagctct gtcaggtgtt
ttgtgcagct gacagargta atgttacatc acctaaaaaa gaaagataca cggtcagtta
                                                                      780
tcctaaaaat aaattgtttg gaaagtacaa tgcaccacat ttttgtaga gtctactatt
                                                                     840
tgataaacag ttgaaattca agatgtgttt gacccttagt catttttact ctttggttct
                                                                      900
                                                                      960
gagtatacct attitcttag cgtatctgcc ttgtttatct ttttcttcac cttttaacaa
gtatgacata ggaaagtcat tttttttag aattcatgga tcagtctgat ctactcttat
                                                                     1020
tcataatgga acatgtaaat atactgaaaa ctgtttttca ggagagaaat atgagttgga
                                                                    1080
gggaaggaaa agtggttcta ctaatgttcc aaaatcctca tcagagaagg tatgatgttc
                                                                     1140
tcaggtgtgg aaaatatttt ttagttgatt gagaatgcag gtttaacaga agagataagg
                                                                     1200
ggcataatga ctgctggttt tccagactgg attttcctac cgaactatt aatgttctca
                                                                    1260
                                                                    1320
gagttgatga ggaccacctt tgtgtataca cttgtagttt taaaccttgc attggtaaca
aaatgatcaa ctttaatcca ggtagaattc aagatggctg tacttcagtt gtatgataaa
                                                                     1380
attaatggtt ctcatgactt gtgtggcatc taaaaataat gtttttatag catctctctg
                                                                     1440
ccactaaatt gttgacttga attttgggaa aaaaaaaagt tggtgttgat atgtatatgt
                                                                     1500
gtgtgtgtat atatgtattt ataaacaagt gtgtttgagt aacaagtgag tttcatagtc
                                                                     1560
                                                                     1620
ttcccctacg catgtgtatt ccacacaca atggctgagt tatagtcata aaacaatttg
caataaaaaa aaaaccaaaa cagattgtca gttaacagg aaacagttaa tgttttttaa
                                                                    1680
tgaatctggc attatagtga gcaaatgtcg tattaattta ggctaatttc taatactacc
                                                                     1740
ataatttgtg tctaaatttc tgttggggta gaaattacta aaattgtggg gagttttttc
                                                                     1800
tgatttttac attgctttag gaaacatttt tactaattca gctgtcttag gtaaaatgaa
                                                                     1860
tagttttctt cctgtttttt tatgtgtcat tgttagtggt ctcagaattc tgatcagtaa
                                                                     1920
ctttgtgtat gatgctgaat tacaaaccgt ttgaatgatc cagttgaaaa cgtatccctc
                                                                     1980
tactttcttc agttgtagaa aaggttaatt tccctcagtg tcccacatta taccaaccta
                                                                     2040
agagaagaac aggtaatagg gagaaataaa ætacggtgg tttcagtggt tttggtcatg
                                                                    2100
tgtccacagg agaaactaac cattcagttg tcttaatttt agttcgttct accctgtgag
                                                                     2160
gagtttgttt ccatcagttg ttgactttcc aaaatgttgc attaagtaat agttgtcact
                                                                     2220
ctgttggtct catggtcaat atcaatcaga ctttcatgat ctctactaat tattagtaga 2280
                                                                     2340
gtcctgtact atgtctgtaa ctactaagtt taaagaaaag cacatagtca cttcatctct
ttttttctta gcctacgctc actccccaac ccatcccaac attgacatgc tatctgtgga
                                                                     2400
caaatagcag ttctcagaat ctagtcaagt tgccatcatc ccccttgcct tggccgttca
                                                                     2460
tagtaggtat gcatatgttt gtttctgtac agtactgtgt gtgtgtgtgt atatatatat
                                                                    2520
                                                                     2580
acatctgtat gcacacatct ttgataaaat agctatttga ctagcagggt taaagtggct
                                                                     2640
tttaattact tcgtgagtgt tattggatac atcttaaaaa aaaaaaatct ggacccagan
ccatgccata cttggttgga ctattttggg gcattnaaaa ttg
                                                                   2683
<210> 71
<211> 2687
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1614)..(1614)
<223> n equals a,t,g, or c
```

```
<400> 71
                                                                       60
gtacaccatg ggcctccacc tccgccccta ccgtgtgggg ctgctcccgg atggcctcct
gttcctcttg ctgctgctaa tgctgctcgc ggacccagcg ctcccggccg gacgtcaccc
                                                                     120
                                                                      180
cccagtggtg ctggtccctg gtgatttggg taaccaactg gaagccaagc tggacaagcc
gacagtggtg cactacctct gctccaagaa gaccgaaagc tacttcacaa tctggctgaa
                                                                      240
                                                                     300
cctggaactg ctgctgcctg tgcatcattg actgctggat tgacaatatc aggtggttt
                                                                      360
acaacaaaac atccagggcc acccagtttc ctgatggtgt ggatgtacgt gtccctggct
ttgggaagac cttctcactg gagttcctgg accccagcaa aagcagcgtg ggttcctatt
                                                                      420
                                                                      480
tccacaccat ggtggagagc cttgtgggct ggggctacac acggggtgag gatgtccgag
gggeteeeta tgactggege egageeeeaa atgaaaaegg geeetaette etggeeetee
                                                                      540
gcgagatgat cgaggagatg taccagctgt atgggggccc cgtggtgctg gttgcccaca
                                                                      600
gtatgggcaa catgtacacg ctctactttc tgcagcggca gccgcaggcc tggaargaca
                                                                      660
                                                                     720
agtatatccg ggccttcgtg tcactgggtg cgccctgggg gggcgtggc aagaccctgc
                                                                      780
gcgtcctggc ttcaggagac aacaaccgga tcccagtcat cgggcccctg aagatccggg
                                                                      840
agcagcageg gtcagetgtc tecaceaget ggetgetgee etacaactae acatggteae
ctgagaaggt gttcgtgcag acacccacaa tcaactacac actgcgggac taccgcaagt
                                                                      900
                                                                      960
tetteeagga categgettt gaagatgget ggeteatgeg geaggaeaca gaagggetgg
                                                                     1020
tggaagccac gatgccacct ggcgtgcagc tgcactgcct ctatggtact ggcgtcccca
caccagacte ettetactat gagagettee etgacegtga eectaaaate tgetttggtg
                                                                     1080
                                                                    1140
acggcgatgg tactgtgaac ttgaagagtg ccctgcagtg caggcctgg cagagccgcc
                                                                     1200
aggagcacca agtgttgctg caggagctgc caggcagcga gcacatcgag atgctggcca
                                                                     1260
acgccaccac cctggcctat ctgaaacgtg tgctccttgg gccctgactc ctgtgccaca
                                                                     1320
ggactcctgt ggctcggccg tggacctgct gttggcctct ggggctgtca tggcccacgc
                                                                     1380
gttttgcaaa gtttgtgact caccattcaa ggccccgagt cttggactgt gaagcatctg
ccatggggaa gtgctgtttg ttatcctttc tctgtggcag tgaagaagga agaaatgaga
                                                                     1440
gtctagactc aagggacact ggatggcaag aatgctgctg atggtggaac tgctgtracc
                                                                     1500
ttaggactgg ctccacaggg tggactggct gggccctgt cccagtccct gcctggggcc
                                                                    1560
                                                                     1620
atgtgtcccc cctattcctg tgggcttttc atacttgcct actgggccct ggcncsgcag
                                                                     1680
ccttcctatg agggatgtta ctgggctgtg gtcctgtacc cagaggtccc agggatcggc
                                                                     1740
tectggeece tegggtgace etteceaeae aceageeaea gataggeetg ceaetggtea
                                                                     1800
tgggtagcta gagctgctgg cttccctgtg gcttagctgg tggccagcct gactggcttc
ctgggcgagc ctagtagctc ctgcaggcag gggcagtttg ttgcgttctt cgtggttccc
                                                                     1860
aggccctggg acateteact ecacteetae etceettace accaggagea tteaagetet
                                                                     1920
                                                                    1980
ggattgggca gcagatgtgc ccccagtccc gagctgtgt tccaggggcc ctgatttcct
cggatgtgct attggcccca ggactgaagc tgcctccctt caccctggga ctgtggttcc
                                                                     2040
                                                                     2100
aaggatgaga gcaggggttg gagccatggc cttctgggaa cctatggaga aagggaatcc
aaggaagcag ccaaggctgc tcgcagcttc cctgagctgc acctcttgct aaccccacca
                                                                   2160
                                                                     2220
tcacactgcc accctgccct agggtctcac tagtaccaag tgggtcagca cagggctgag
gatggggctc ctatccaccc tggccagcac ccagcttagt gctgggacta gcccagaaac
                                                                     2280
                                                                     2340
ttgaatggga ccctgagaga gccaggggtc ccctgaggcc cccctagggg ctttctgtct
gccccagggt gctccatgga tctccdgtg gcagcaggca tggagagtca gggctgcctt
                                                                    2400
catggcagta ggctctaagt gggtgactgg ccacaggccg agaaaagggt acagcctcta
                                                                     2460
ggtggggttc ccaaagacgc cttcasgctg gactgagctg ctctcccaca gggtttctgt
                                                                     2520
                                                                    2580
gcagctggat tttctctgtt gcatacatgc ctggcatctg tctccccttg ttcctggtg
                                                                     2640
gccccacatg gggctctgag caggctgtat ctggattctg gcaataaaag tactctggat
gctgtaaaaa aaaaaaaaa aaaaaaaaaa aaaaaaaaa ggcggcc
                                                                     2687
<210> 72
<211> 728
<212> DNA
<213> Homo sapiens
<400> 72
aaatgattta gtgacctata caagtagct gcagtaccgg atccgaattc ccggtcgacc
                                                                      60
cacgcgtccg gtgaaaacag cagagtgcta ctccatacca ctgggatctt gtccagtaaa
                                                                      120
catccagaga gtgaggttag gaaataaaaa gtatataaat attagatgcc tagaaatgca
                                                                      180
```

```
240
agtcacttta aagattttat gtgaaataga aaaaaaagag aggagaggga ctcattgtt
                                                                    300
tgtaatgggt ccttcccaga gagaggtgac tgtccagtgg caccgggccc ttttcctcct
tcccctttta ctcttatcaa ctaggacaga aactaagaat tttggcttca agtggctaaa
                                                                    360
                                                                    420
agactgatgg gggaaaaaag aaaatagaaa aaaataacag agagactgac gctctaggca
qttacaagtc caagaaaaaa gæagaaact tttaagtatt gagccaaaac caggtctagc
                                                                    480
                                                                    540
aamcataatg ctggccctag attatttatt aatttatgaa gaaacttcta gatatggggg
tgacaaaagg aaattaaatc cattatatat gcatatattt taatgtaaat atataataga
                                                                    600
taaattatgt atacataata tataaccaaa ttgaaacagt tttacaattt ggttgactg
                                                                   660
                                                                    720
728
gggcggcc
<210> 73
<211> 1635
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (85)..(85)
<223> n equals a,t,g, or c
<400> 73
tcgacccacg cgtccgcagc tctccgtgga caatgggctg tggcgtgtga ccctgtgcat
                                                                     60
gctggccttc ccgctgctcc tcacnggcct catctccttc agggagaaga ggctgcagga
                                                                    120
                                                                   180
tgtgggcacc cccgcggccc gcgcccgtgc cttcttcacc gcacccgtgg tggcttcca
cctgaacatc ctctcctact tcgccttcct ctgcctgttc gcctacgtgc tcatggtgga
                                                                    240
cttccagcct gtgccctcct ggtgcgagtg tgccatctac ctctggctct tctccttggt
                                                                    300
                                                                    360
qtqcqaqqaq atqcqqcaqc tcttctatqa ccctqacqaq tqcqqqctqa tqaaqaaqqc
agcettgtac ttcagtgact tctggaataa gctggacgtc ggcgcaatct tgctcttcgt
                                                                    420
                                                                    480
ggcagggctg acctgcaggc tcatcccggc gacgctgtac cccgggcgcg tcatcctctc
                                                                    540
totggactto atcotgttot gcotcoggot catgoacatt tttaccatca gtaagacgot
ggggcccaag atcatcattg tgaagcggat gatgaaggac gtcttcttt tcctcttcct
                                                                   600
gctggctgtg tgggtggtgt ccttcggggt ggccaagcag gccatcctca tccacaacga
                                                                    660
gcgccgggtg gactggctgt tccgargggc cgtctaccac tcctacctca ccatcttcgg
                                                                    720
                                                                    780
gcagatcccg ggctacatcg acggtgtgaa cttcaacccg gagcactgca gccccaatgg
caccgacccc tacaagccta agtgccccga gagcgacgcg acgcagcaga ggccggcctt
                                                                    840
ccctgagtgg ctgacggtcc tcctactctg cctctacctg ctcttcacca acatcctgct
                                                                    900
                                                                    960
qctcaacctc ctcatcqcca tgttcaacta caccttccag caggtqcagg agcacacgga
ccagatttgg aagttccagc gccatgacct gatcgaggar tæcacggcc gccccgccgc
                                                                  1020
                                                                   1080
geogeeecc tteatectee teageeacct geagetette ateaagaggg tggteetgaa
                                                                   1140
gactccggcc aagaggcaca agcagctcaa gaacaagctg gagaagaacg aggaggcggc
cctgctatcc tgggagatct acctgaagga gaactacctc cagaaccgac agttccagca
                                                                   1200
                                                                   1260
aaagcagcgg cccgagcaga agatcgagga catcagcaat aaggttgacg ccatggtgga
cctgctggac ctggacccac tgaagaggtc gggctccatg gagcagaggt tggcctccct
                                                                   1320
                                                                   1380
ggaggagcag gtggcccaga cagcccgagc cctgcactgg atcgtgagga cgctgcgggc
                                                                   1440
cagcggcttc agctcggagg cggacgtccc cactctgcc tcccagaagg ccgcggagga
gccggatgct gagccgggag gcaggaagaa gacggaggag ccgggcgaca gctaccacgt
                                                                   1500
                                                                   1560
gaatgcccqg cacctcctct accccaactg ccctqtcacg cqcttccccq tgcccaacga
gaaggtgccc tgggagacgg agttcctgat ctatgaccca cccttttaca cggcagagag
                                                                   1620
                                                                   1635
gaaggacgcg gccgc
<210> 74
<211> 4893
<212> DNA
<213> Homo sapiens
<400> 74
```

```
60
ccacgcgtcc gtgagaagat aatcctgaga ggctgcatcc tgagaaatac cagctggtgt
                                                                    120
tttggaatgg ttatttttgc aggtcctgac actaaacha tgcagaatag tggtaagaca
aagtttaaaa ggacaagcat tgatagattg atgaatactc tagtactatg gatttttggg
                                                                     180
tttctqatat gcttqqqaat tattcttqca ataqqaaatt caatctqqqa qaqtcaaact
                                                                     240
                                                                     300
ggggaccaat tcagaacttt cctcttttgg aatgaaggag agaagagctc tgtgttctcc
                                                                     360
ggattettaa cattetggte atatattatt atteteaata eagttgtace cattteetta
                                                                     420
tatgtgagtg tggaagtaat tcgtctagga cacagttatt ttataaactg ggaccggaag
atgtattatt ctcgaaaagc aatacctgca gtggctcgaa cgaccacgct caatgaggaa
                                                                     480
                                                                    540
ctggggcaga ttgagtacat tttctccgac amacgggta ccctcactca aaacatcatg
acctttaaaa gatgttccat taatgggaga atctatggtg aagtacatga tgacctggat
                                                                     600
cagaagacag aaataactca ggaaaaagag cctgtggatt tctcagtcaa atctcaagcg
                                                                     660
gatagagaat ttcagttctt tgaccacaat ctgatggaat ccattaaaat gggtgatccc
                                                                   720
aaagttcatg aattccttag gttacttgct ctctgccaca ctgtaatgtc agaagagaat
                                                                     780
agcgcaggag agctgattta ccaagttcag tcacctgatg aaggggctct agtgactgcc
                                                                     840
                                                                     900
gctagaaatt ttgggttcat ttttaaatcc cggaccccag agaccataac aatagaagaa
ttgggaacac tagttactta tcaattætt gcctttttgg atttcaacaa caccagaaaa
                                                                    960
aggatgtctg tcatagttcg aaacccagaa ggacagataa agctttattc caaaggagca
                                                                    1020
gatactattc tgtttgagaa acttcatcct tccaatgaag tccttttgtc tttgacgtca
                                                                    1080
                                                                  1140
gaccacctca gtgaatttgc aggggaaggc cttcggacct tggccatcgc atacagamgc
ctggatgaca agtactttaa agagtggcat aagatgcttg aagatgcgaa tgttgccaca
                                                                    1200
                                                                    1260
gaaqaqaqgg atgaacgaat aqctqqqcta tatgaaqaaa ttqaaagaga tttqatqcta
ctaggtgcca ctgctgtaga agataagtta caggagggtg ttattgaaac agttacaagt
                                                                    1320
                                                                   1380
ttatcactag ccaatattaa gatctgggtc ctaacaggag acaaacaaga aactgccatc
                                                                    1440
aacatcggtt atgcctgcaa catgctgact gacgacatga atgatgtgtt tgtgatagca
                                                                    1500
caaaacagaa atttttccaa tggccatgta gtttgtgaaa aaaagcagca gtggagttg
                                                                   1560
gattctattg tagaagaaac cataacagga gattatgcct taatcataaa tggccacagt
                                                                    1620
                                                                    1680
ttggctcatg ccctagaaag tgatgtcaag aatgatctcc tagaacttgc ttgcatgtgt
                                                                    1740
aagactgtaa tttgctgcag ggtcactcca ctccagaaag cccaagtggt agagctggtg
                                                                    1800
aagaagtaca gaaatgctgt tactttggcc attggtgatg gagccaatga tgtcagcatg
                                                                    1860
attaaaagtg ctcacattgg tgttggcatc agcggccagg aaggattgca agcagtctta
                                                                    1920
gccagcgact attcatttgc acagtttaga tatctccaaa ggcttctcct tgttcatgga
aggtggtctt atttccgaat gtgcaaattc ttatgctatt tcttctaaa gaattttgca
                                                                   1980
tttacacttg tgcatttctg gtttggtttc ttctgtggtt tctcagccca gactgtttat
                                                                    2040
gaccagtggt tcatcaccct ttttaacatt gtttacacat cactgcctgt tttagccatg
                                                                    2100
gggatttttg accaggatgt gagtgaccag aacagcgtgg actgtcccca gctctacaaa
                                                                    2160
ccaggacage tgaatetget ttttaacaag egtaaatttt teatttgegt gatgeatgga
                                                                    2220
atctacacct cattagtcct tttcttcatc ccctatgggg ccttttacaa cgtggctgga
                                                                    2280
                                                                    2340
gaagatgggc aacatattgc tgactaccag tcctttgcag ttaccatggc cacatctttg
                                                                   2400
gtcattgtgg tcagtgtgca gatagccttg gataccagtt ætggacttt cattaatcac
gtcttcatct gggggagcat tgccatttat ttctccattt tatttacaat gcacagtaat
                                                                    2460
ggcatctttg gcatcttccc aaaccagttt ccatttgttg gtaatgcacg acattccctg
                                                                    2520
acccagaagt gcatctggct tgtaattctc ttaacaacag tggcttcagt tatgccagtg
                                                                    2580
gtggcattca gatttttgaa ggtggattta tacccaaccc tgagtgatca gatccgccgg
                                                                    2640
tggcagaagg ctcaaaagaa ggcaaggcct ccaagtagcc gaaggcctcg gacccgcagg
                                                                    2700
                                                                    2760
tcaagctcaa gaaggtctgg atatgctttt gctcaccaag aaggctatgg agagcttatc
                                                                   2820
acatctggaa aaaatatgcg agctaaaaat ccaccccaa catcagggct ggaaaagaca
cattataata gcactagctg gattgaaaat ttatgtaaga aaaccacaga caccgtgagc
                                                                    2880
                                                                    2940
agctttagcc aggataaaac agtgaaactg tgagtcaata tgaatttaaa ccacgtagtt
                                                                    3000
atcttttcac ttcaggtgga gctgaaattc tgctggctcc agagtttgag atttgaggca
                                                                    3060
agaggtgggg caggcagatt gcctcactta acttaaatct gcggcagaca actgccagtg
cccatcaaac aggagtgtgc gctatggaaa accaggccag agggtcactg tctggtttgt
                                                                    3120
gatttggtgg acaaaacact cgctgttaca agtacagatt ttttttttt ttaaatcaac
                                                                    3180
                                                                   3240
ctagatacca attgacctga actttagaatcttatttatg gagaaaaact tgtaaagctg
                                                                    3300
catattcact gaatggatcc tcaggcggat aaaagggtgc attttaaagg tatatatcca
agctgaaaag catgcctatt gacagataaa catgtatctg taagatcagc ctttcccaag
                                                                    3360
gtatactttt aaaatttaaa gcgtgtactg tgttgctttc agactgagtt gcatgtcact
```

```
ctttagtctt gatatctacc tgtctgttca gccaggacaa caaatggctt ccaagcctga
                                                                     3480
                                                                     3540
agaatacaaa agtgtgcttg tgtttctcat ttttatacca gtctagggac aaaggagact
gaacatettt geageaggat aggetggtaa tttgateaaa tttatteaaa aageteteag
                                                                     3600
                                                                    3660
tctgtgtcat gtaaggacat gctt&gaaa tgtgagagag gctcgccact aagtattcta
aatacttttc aatggctttt ctaacaacct cagtagtaat ttgctgagca tcatccagac
                                                                     3720
cattaataga atcagcaaag cactggaatt tcacacttta atgataatat tccacatagt
                                                                     3780
                                                                   3840
ctatgggcaa atattttcaa catttccaat ttttaaagct tcagaattga agccaacaa
attaataaat aattgtttta attactattt aaaaactcag gtttagattg tttaaaatta
                                                                     3900
gttgcttttg atactcagct gtcatgttta taattcaaac atgtagtaaa catatgtagg
                                                                     3960
taaggttgtt tttttggaga tgttgcagct caaatttcag tccacatatg aatcatcagt
                                                                     4020
gtattttcca taaagtgatt cgggcatatt tgtgtgaaaa cctcagttct gtcacttctt
                                                                    4080
acctctataa acttggacga taatgtgcct tctctgagac tcagtttctt cctctgtaaa
                                                                     4140
atgaggacat actacctacc tcacgtggtt ggttgatgat tgtctgtcaa agcacaaact
                                                                     4200
ctgaaattat taaaaacata attatttcat aaacagatga gttaagttccagttaactca
                                                                    4260
                                                                     4320
acatcagtat aacagagcaa ttggaagaga atatgaaaaa actggaatct aaatagtcag
tgaggaaggc tttgataaaa tgaaattgcc agaaagatat aaaactggtt agggtcctac
                                                                     4380
                                                                     4440
agggaaataa aattataacc gtggaggtac atttctctac cagaaagcaa aaataaagca
tcatgtctta atggttttct acaaatcaac ttctaattct acagagtcct taatctggtc
                                                                    4500
cctattaaat tcttggtcag acaaagttac atttcccaag agagtcaggt gacacttgag
                                                                     4560
tgagtttgat ggataatgag ctaatgtgat atctataggt cacaattttt taaaaccaaa
                                                                     4620
attttcaagt ctgggataat ctttcctaaa tgggatcaaa tgaaaaata tgtgtaaaag
                                                                    4680
agtcaaatgc agtcctttac catagtaact gcctatggac gttgtctttc ccttacatgc
                                                                     4740
ctgcctacac ttaaccagat gttggttttc aatgtctaat ttgtcattag tttcaccaca
                                                                     4800
tttgctcact ttttgtaaca tttttgcaag atttgaaaac tttcagtaaa tgttttggca
                                                                     4860
                                                                     4893
ctattggtaa aaaaaaaaaa aaaaaaaaa aaa
<210> 75
<211> 1410
<212> DNA
<213> Homo sapiens
<400> 75
gcccacgcgt ccgagaaaaa tgctgctcag tttttattgt ctaccaatgg taagtataca
                                                                       60
tattttcttt ccatgtgccc actgtgtgta cctgttgcac atatctgta gcctaggaga
                                                                     120
ggaatcattt aacagagata cttgtaaaaa ggacttttgt ttttctatac agaatgtaaa
                                                                      180
ctctactttt ttactgtcac ttgcagtttt tagattctct gaaagattct ctgatagcaa
                                                                      240
ttttttgttt actacacctc caatttgtag tgaaaagaat gggctgctat accattggat
                                                                      300
ttaggtcagg tactatttct gtcatttctc agtctcgtaa tcttgggcag gttactaaca
                                                                     360
ctgaattgaa ttttcctcag cagcaaacta gagatagcaa ttttttatta tagtattatt
                                                                      420
atgaatatta aataacttca catacatcat gagtgcaagt gctcaataaa tgttaattta
                                                                      480
ttcctccttt ttaagtgttt gtaaactaca cagagtatctcaaactgcag atacaaaata
                                                                     540
                                                                      600
ctcaaaggat ggtctccatt ccaggatacg ctataggaga gcactttctt acttgatcac
cattagcata ttgccttctt cccagcaatc cacatggctg gaaggagatt cctctcctac
                                                                      660
tgtttacttg ccaagggaac attttttgtt gttttttgag acaatgtctg tcgcccaggc
                                                                      720
                                                                      780
tgaagtgcat tggtgtaatc acagctcact gcagcctcga cctccctacc tcagtctcct
gagtagctgg gaccacaggt gagtgccacc acacccggct aattttttaa aaacattttt
                                                                      840
gtagagcctg ggtaacatgg ggtggaacaa gcctgtagtc ccagatactc aggaggctga
                                                                      900
                                                                     960
ggtgaaagga ttgcttgggc cagggaggtc aagg¢gcag tgagccgtga aaggccactg
                                                                     1020
cactccagcc tgggtgacag aatgagacct tgtctcaaaa aaaaaaaaa agtttcttgg
aacctatacg tttttttttg ttttttttt gaaaagccag accttgtgcc cttgttttga
                                                                     1080
acaccqactg ggaagatggg gcttaggtaa cagccaaacc tggctgtcag ctgtgtggga
                                                                     1140
gccaccaccc tctctgggaa gagttcctgc ttctgtatgg caagcataaa tcaagctcag
                                                                     1200
tctgggttat ggagaagttg aaaattgttt tgttcctcat tagtttataa ttgtatgaaa
                                                                     1260
tacgatttta atgaaaactt ttcagaattc acgtttgtgt agatatttca gagaaccatt
                                                                     1320
tttactttac atcctaaaac tgccttttcctatggttttg tcaataaaac actatgatgt
                                                                    1380
tgaaaaaaa aaaaaaaaa aaaaaaaaa
                                                                     1410
```

```
<210> 76
<211> 1655
<212> DNA
<213> Homo sapiens
<400> 76
                                                                       60
ccacgcgtcc gggcaaagaa ttaaacctgg tgtttggact tcaacttagc atggctagaa
ttggaagtac agtaaacatg aacctcatgg gatggctgta ttctaagatt gaagctttgt
                                                                      120
                                                                      180
taggttctgc tggtcacaca accctcggga tcacacttat gattgggggt ataacgtgta
ttctttcact aatctgtgcc ttggctcttg cctacttgga tcagagagca gagagaatcc
                                                                      240
ttcataaaga acaaggaaaa acaggtgaagttattaaatt aactgatgta aaggacttct
                                                                     300
                                                                      360
ccttacccct gtggcttata tttatcatct gtgtctgcta ttatgttgct gtgttccctt
ttattggact tgggaaagtt ttctttacag agaaatttgg attttcttcc caggcagcaa
                                                                      420
                                                                     480
gtgcaattaa cagtgttgta tatgtcatat cagctcccat gtccccggtg tttgggctcc
tggtggataa aacagggaag aacatcatct gggttctttg cgcatagcag ccactcttgt
                                                                      540
gtcccacatg atgctggcct ttacgatgtg gaacccttgg attgctatgt gtcttctggg
                                                                      600
actotectac teattgettg cetgtgeatt gtggccaatg gtggcatttg tagtteetga
                                                                      660
acatcaqctq qqaactqcat atqqctcat gcaqtccatt caqaatcttq qqttqqccat
                                                                     720
                                                                      780
catticeatc attgctggta tgatactgga ttctcggggg tatttgttt tggaagtgtt
                                                                      840
cttcattgcc tgtgtttctt tgtcactttt atctgtggtc ttactctatt ggtgaatcgt
gcccagggtg ggaacctaaa ttattctgca agacaaagga agaaataaaa tttccatac
                                                                     900
tgaatgagaa gttaaaatga atgtgtcaga gaatgggctt aacacatcgt tggtttgaaa
                                                                      960
acttccattt taaaaattta gagtttagtc attagaaaaa ataatggact ggaaagttat
                                                                     1020
                                                                     1080
atttatatcc aaatatacct atttcaaagt gtatttgtga ggcctgtttt agcctgtgtc
                                                                     1140
ttttgtattg tgtgttgcta aagaattcta cttttagtag gctaatcaac aatgaaaggg
ttagaaaatt gctgtggaac atccaggtga acttcaggaa agacagtgaa aaatggaaaa
                                                                     1200
cqttqqaqct tctqttqaqa taatcttcat taqqtatata tcttaqqqat acaqcctttt
                                                                     1260
ctttatctta tagcaggaaa aaaaaacttt tgagggaaat agaagggctgcgttacacaa
                                                                    1320
aataaacaat ggcattgtca taggccttcc ttttactagt agggcataat gctagggaat
                                                                     1380
                                                                     1440
atgtgaagat gtttttttga agtctctttc tgatcacgaa caatagcttg cgctctactc
                                                                     1500
tgtagttatg tggattgccg agcaatgacc cttttcaatt tcttatttct gtgttactga
ggaccctaat cacttaggga tgtaatttta tagtataaac tttctgtaca gtttttctta
                                                                     1560
tagtctaata agtaaaaagt gtccttcaaa ttatgataat tgcctatgta catggataaa
                                                                     1620
                                                                     1655
ttaaaacact gcacacggaa aaaaaaaaaa aaaaa
<210> 77
<211> 1905
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1828)..(1828)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (1837)..(1837)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
```

```
<222> (1846)..(1846)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (1860)..(1860)
<223> n equals a,t,g, or c
<400> 77
ngccacagca gagacagtgg agggcagtgg agaggaccgc gctgtcctgc tgtcaccaag
                                                                       60
agctggagac accatctccc accgagagtc atggccccat tggccctgca cctcctcgtc
                                                                     120
ctcgtcccca tcctcctcag cctggtggcc tcccaggact ggaaggctga acgcagccaa
                                                                      180
gaccccttcg agaaatgcat gcaggatcct gactatgagc agctgctcaa ggtggtgacc
                                                                      240
tgggggctca atcggaccct gaagccccag agggtgattg tggttggcgc tggtgtggcc
                                                                     300
                                                                      360
gggctggtgg ccgccaaggt gctcagcgat gctggacaca aggtcaccat cctggaggca
gataacagga tegggggeeg catetteace tacegggace agaacaeggg etggattggg
                                                                      420
gagctgggag ccatgcgcat gcccagctct cacaggatcc tccacaagct ctgccagggc
                                                                      480
ctggggctca acctgaccaa gttcacccag tacgacaaga acacgtggac ggaggtgcac
                                                                     540
                                                                      600
gaagtgaagc tgcgcaacta tgtggtggag aaggtgcccg agaagctggg ctacgccttg
cgtccccagg aaaagggcca ctcgcccgaa gacatctacc agatggctct caaccaggcc
                                                                      660
ctcaaagacc tcaaggcact gggctgcaga aaggcgatga agaagtttga aaggacacg
                                                                     720
ctcttggaat atcttctcgg ggaggggaac ctgagccggc cggccgtgca gcttctggga
                                                                      780
                                                                      840
gacgtgatgt ccgaggatgg cttcttctat ctcagcttcg ccgaggccct ccgggcccac
agctgcctca gcgacagact ccagtacagc cgcatcgtgg gtggctggga cctgctgccg
                                                                      900
                                                                      960
egegegetge tgageteget gteegggett gtgetgttga aegegeeegt ggtggegatg
acceagggac cgcacgatgt gcacgtgcag atcgagacct ctcccccggc gcggaatctg
                                                                     1020
aaggtgctga aggccgacgt ggtgctgctg acggcgagcg gaccggcggt gaagcgcatc
                                                                     1080
accttctcgc cgccgctgcc ccgccacatg caggaggcgc tgcggaggt gcactacgtg
                                                                    1140
                                                                     1200
ccggccacca aggtgttcct aagcttccgc aggcccttct ggcgcgagga gcacattgaa
ggcggccact caaacaccga tcgcccgtcg cgcatgattt tctacccgcc gccgcggag
                                                                     1260
ggcgcgctgc tgctggcctc gtacacgtgg tcggacgcgg cggcagcgtt cgccggcttg
                                                                     1320
agccgggaag aggcgttgcg cttggcgctc gacgacgtgg cggcattgca cgggcctgtc
                                                                    1380
gtgcgccagc tctgggacgg caccggcgtc gtcaagcgtt gggcggagga ccagcacagc
                                                                   - 1440
cagggtggct ttgtggtaca gccgccggcg ctctggcaaa ccgaaaagga tgactggacg
                                                                    1500
gtcccttatg gccgcatcta ctttgccggc gagcacaccg ccacccgca cggctgggtg
                                                                    1560
gagacggcgg tcaagtcggc gctgcgcgcc gccatcaaga tcaacagccg gaaggggcct
                                                                     1620
gcatcggaca cggccagccc cgaggggcac gcatctgaca tggaggggca ggggcatgtg
                                                                     1680
                                                                     1740
catggggtgg ccagcagccc ctcgcatgac ctggcaaagg aagaaggcag ccaccctcca
gtccaaggcc agttatctct ccaaaacacg acccacacga ggacctcgca ttaaagtatt
                                                                     1800
                                                                     1860
ttcggaaaaa gccgtgtggt ccagcttncc ccgtggnttc aattantttc ccaattttgn
ctgcattcgg aaccattagc cctgcaattt agcaggggca agccc
                                                                     1905
<210> 78
<211> 6297
<212> DNA
<213> Homo sapiens
<400> 78
ccacgcgtcc ggtcagcttt catctcgtcc tatctttgtt caggcaaact tctctagttc
                                                                       60
tgttttaata ggcatatttg ttaggtctgt tttttgaaat cctcttttt acattgttta
                                                                      120
aagataatgc cttggctaaa aagcctgctt cacttttccc tgtttttagt tgttttctcc
                                                                      180
acattggcag taaagagcct tggcgtccca gtagcagcag gttctccttt ttqtattqtq
                                                                      240
gatgttttgc atttcatact gttgtgaaga gtggctttga tcatacatgt tgttggtata
                                                                      300
tttgcctttt tgctgggggt gtgagaagaa ccagagatga gcagaggtac acccagtaga
                                                                      360
cttcccagcc tgcagagcct cccgggaaga gcttccgt& tcaggtgctt ggggccccac
                                                                     420
cctaggagcc tgactcacag tcagagcagg gtcccggctt gtgttcagga ttttgaaaca
                                                                      480
tttgtaaggt gattttgttg tttctacacc tttctcctca tcttttttt tttgtagtta
                                                                      540
```

```
600
atcgttacta ataacagaaa agacattttt ggcatggtaa ttggcacaaa gtgaataatt
                                                                     660
gttgaataga tgacttttga ggctttcaaa attcgagtgt ccataaaatc catccagagc
                                                                     720
cacctggttc ctttttttga accacttaac gtaattctgg aaaaccttga ctgtgggtct
                                                                     780
taagtttggt ggattgctgc ttctcactgg ctgacctttg gaggtcgcat atttcaggat
                                                                    840
gtgattccac ttaggctcca tttcacctga cacgcaatt ctgtgccttc agagggattt
                                                                     900
gttattgcga atgatgtgga caacaagcgc tgctacctgc tcgtccatca agccaagagg
                                                                     960
ctgagcagcc cctgcatcat ggtggtcaac catgatgcct ccagcatacc caggctccag
atagatgtgg acggcaggaa agagatcctc ttctatgatc gaattttatg tgatgtccct
                                                                    1200
tgcagtggag acggcactat gagaaaaaac attgatgttt ggaaaaagtg gaccacctta
                                                                    1080
                                                                    1140
aatagcttgc agctacatgg cttacagctg cggattgcaa cacgcggggc tgaacagctg
                                                                    1200
gctgaaggtg gaaggatggt gtattccacg tgttcactaa accctattga ggatgaagca
gtcatagcat ctttactgga aaaaagtgaa ggtgctttgg agcttgctga tgtgtctaat
                                                                   1260
qaactgccag ggctgaagtg gatgcctgga atcacacagt ggaaggtaac ctttcctcga
                                                                    1320
                                                                    1380
gaactttcat tctaaagagt aggtgcagca tcactgaagt agagtcaagt ttcaaagcat
                                                                   1440
tcacgtgtga gtaacttgaa taaatactac atctggttat gccaattaga atcaatttg
                                                                    1500
gagtgttatt tcatgacaca tttcatgaca agtggcatgt ttattcctgg cagtggaaaa
gttttttttt ctccacgtac agaaataaac tcttttactc tcatccctgt aagggtagct
                                                                    1560
ttgctttttt tttttttt taaattgggc cgggattcaa gccttgtttc caatatgaag
                                                                    1620
                                                                   1680
taattcatta caattttagg cagaaacag cctgaggctt gtttaaaaaag aaaaaaacta
gatggaaaat gttattttat aatgcttgtc ctggttttta gaataaatgt atttcatctt
                                                                    1740
1800
                                                                   1860
ttgtcttggc aaataatctt cctatctttg gagtgaatga gaatcaccat ttgcacctt
                                                                    1920
tgagagaatg gatactcctg ccctgtgatt tttgttggta ttggatagtg ctagtaatct
                                                                    1980
ggaatgtacc ctgtggttct gcaggtaatg acgaaagatg ggcagtggtt tacagactgg
                                                                    2040
qacqctqttc ctcacagcag acacacccag atccgaccta ccatgttccc tccgaaggac
ccagaaaagc tgcaggcat gcacctggag cgatgcctta ggatattacc ccatcatcag
                                                                    2100
                                                                    2160
aatactggag ggttttttgt ggcagtattg gtgaaaaaat cttcaatgcc gtggaataaa
                                                                    2220
cgtcagccaa aggtgagttt ttctttttcc aaaatgacat aacatttgat cttgtacatt
                                                                   2280
taagacaaaa actaaccgga gtttagtaga agtacagagg aaagagggc ttcttgctgt
                                                                    2340
gggcagcagg agagctgacc ctgaatgagg gggaatttca tttaaatatc aagttttcca
                                                                    2400
aaaagcagaa atttctcata ggtgataggt aagtggagaa gtcagtgttt gggggaatgt
attcctgcca cactgtaaat ccagttattt aataaaaatt gaaaagacat gaaagattgc
                                                                    2460
tctgtggctc tcaattggaa gccccaggtt tctgtgctct agttccttgt gagtggttca
                                                                    2520
tttcaccaat tacagatagc agagctctgc tgaccccaag ccagcccggg ttcaccttgg
                                                                    2580
                                                                    2640
ctgcaaggaa tgatgacggc cttgtccaga cctggctaga aagatgcagc ccggcctgtt
                                                                   2700
tgctatggat ctaaactgcc tgctggttcc tttccaaggc agccaggaa acagtggtga
                                                                    2760
aggagtgttg ccctcatcct aacacgcagt cctttgtaat gcgtgctgtc tcacctgtat
cacgccagca ttatttatta gttcataaat cagccttcca tgatgaaaga acctggcctg
                                                                    2820
                                                                    2880
gaatcaaagt ctggaagtct gtatttcttt aagatccatg cttgaaaatt aggacaaaaa
                                                                    2940
acgcttagct ttggaggaac aaaaaggaaa cagttccgca aagagctcca gcctttttct
ggggcacggt ttgtgcagtt taacgttgga acgtacagcc tcagacgggc aaagggggcg
                                                                    3000
actgcacttc tgccgccacc agggtttttc tgtcaggtta gaaagtattt cactttgagg
                                                                    3060
ctaaaagtct cacaaggtat cttaacgctg atggaatgtt attttcatgg aatcagtata
                                                                   3120
                                                                    3180
agaaattata ttgtaaagta ttagatactt tgcattcatt catactaggt ttcagtagct
                                                                    3240
tqtqttttag actttqcqct tqtcacattt taaqtqqtca qtqaccacag gcttqtqgct
gcccagctgc agagcacagt gcagtcacag aggagcctgt cttagagacg cgtgctttag
                                                                    3300
gttggcctgc attagggctt acattgatgt ttctgacgtg ttaatactta catagaaagg
                                                                    3360
                                                                    3420
ttttgacatt ttttcaatta gccccttatg tatagtctta ctttttagaa caacttattg
                                                                    3480
tcattttctc gtttaaataa tatgaatact tctctctttc tgttactatg tcagtttctt
attcacttag ttcaacagat ctagtgctag ætggcctgt gctgctgttg gtcctactgg
                                                                   3540
                                                                    3600
gaacgcaggt agagtctcca tggtcaggat gccgtgttct gttgtggtgc tgaggcctgt
                                                                    3660
aagcacttgg ctagaagtta ggccagggaa gctcacactg accttggtat ttgaaggtcc
                                                                  3720
cagaatgagg ttgttgaggt agaacagaga tgggagaaca tgcccttgga gctggactca
                                                                    3780
acaagaaggc ccctctgggg gaagctgagg ttggacagga agggcgtgtg ccctcactga
                                                                    3840
cttgctcaca ggcttggggt tcatctgttt tggtttttgc ttttttacat tatattaaca
                                                                    3900
tggaaataaa aggtgttccc tgggatgctc ccggcttctc tgctcagtag ctttgtggct
ctgagtaaaa tgaacttgcc tgtgttgaaa tatcctaatt tttaaactta cttcataggg
                                                                   3960
```

```
4080
attttttaaa gatctttaag taaaacattt tgctcattcc caaagccaaa tttaaattat
                                                                    4140
accatggccc taattcagaa gttcattctt tggcaggtgt ttccttggtg cctggggac
tctctctttc tcccagttcc tgtggcagtt tgtccaggtg cccaagaaca attcataccc
                                                                     4200
                                                                     4260
tcctttctcg ttatttatat acttgtcttt ttgcccctgc cgggtatttt agaaatcgtg
                                                                     4320
cttggtgcac tttgtgtcct tcagtgtgcc ttacccagag cagatgcacg ataagcattt
ttacacgaga acaagctggt ggtgtaggcc tctgctaagg aacaggctgt atatgctctt
                                                                    4380
tgtgggatta aggtagaatc agctttaact ccaaagaaac tgtccatgaa ttttgtttat
                                                                     4440
aatagcaagt agatttaaaa tgacactttg aaaaaattct gttgtctttc tctacatata
                                                                     4500
                                                                    4560
atgctgtaga aaaatataac tgatggattt tgtgaacgtg gtatttttaa ttttcgtag
                                                                     4620
cagcacaaag aatgctcctc tttgtgtgtc aatgaaattg ttctttatga cagcttcagg
                                                                     4680
gtaaatctgc agagaccaga gaaagcacac agctgagccc tgcagatctc acagaaggga
aacccacaga tccctctaag ctggaaagtc cgtcattcac aggaactggt gacacagaaa
                                                                     4740
tagctcatgc aactgaggat ttagagaata atggcagtaa gaaagatggc gtgtgtgggt
                                                                    4800
                                                                     4860
aagaaaagtg gttatgtctt gatctaatac gctggtgtct tcacagtcct tttggattaa
                                                                     4920
atgggatccc agagccactt cttggtcggt ttgagggggc agtacatgtg tggtatcagg
                                                                    4980
cacatgcagt gtgagggctg gactctgtgg aagccggaag gtttcacat ctgccgcaaa
ccgttccatg ttgcacagaa ctgacagaaa ggaagaatgt gcttttggta ttgaaggtta
                                                                     5040
ccacacatta cagattgatt tgtctcatcc tgattccctt tttagtcctc ctccatcaaa
                                                                     5100
gaaaatgaag ttatttggat ttaaagaaga tccatttgta tttattcctg aagatgaccc
                                                                     5160
attatttcca cctattgagt aaggattcag cctttttaat tattcattta aagaaattta
                                                                     5220
ctatagagta tcaaatgtac aactgatcac atgtaaccat tgttttgtat gtagttctgt
                                                                     5280
                                                                     5340
ctagcttttt ttttttttt aaccttttta actgcatatt agagcaggat gaaactttag
                                                                    5400
aggttactca atcttttaat ttaaggagaa agtaaacttttactttgtga acatgataga
taaaaaaaaa ctggaccggg cgcggtggct cacggctgta atcccagcac tttgggaggc
                                                                     5460
cgagacgggc ggagcacgag gtcaggagat tgagaccatc ctggctgaca cggtgaaacc
                                                                     5520
ccgtctctac taaaaataca aaaaaaatta gccgggcgtg gtggcgggca cctgtagtcc
                                                                     5580
                                                                     5640
cagctactct ggaggctgag gcaggagaat ggcgtgaacc tgggaggtgg agcttgcagt
                                                                     5700
gageegagat egegeegetg cacteeagee tgggegaeag agegagaete egteteaaaa
aaaacaaaag aaaactggac tgtgattatg aatctaaatt agttgtgatc ctgaacctaa
                                                                     5760
                                                                    5820
attactcaat tgagtatata gacgagtagc caag@tgtc tagttcagtt tctgtagaag
                                                                     5880
aaatgaagag cagcatgggt gagggctaat tagggatgac atagacagaa tatagaggaa
aagggtttag gacaagtctg acattcatct gtttcttatt cattgaattt tagaatctat
                                                                     5940
ttaccagggc ggtcacttac tgtctttttt aataactggt cctttgcata catttgtaaa
                                                                     6000
                                                                     6060
agtctattaa aaaataagtc tcagccgggc acatcccagc acttggggag gctgaggcag
                                                                     6120
gcagatcatg aggttaggag tttgagacca gtctgaccaa tgtggtgaaa ccccgtcttt
actaaaaata caaaaaaaaa ttaggtgtgg tggcgtgcac ctataatcac agctgctcag
                                                                     6180
gctgaggcag gagaaccgct tcaacccggg aggcagaggt tgcagtgagc tgagactgcg
                                                                    6240
                                                                     6297
ccactgcact ccagcttgga agacagagca agactccata tcaaaaaaaa aaaaaaa
<210> 79
<211> 3408
<212> DNA
<213> Homo sapiens
<400> 79
ccacgcgtcc ggaggcagga ccttgtccta ttcattaatc ttgcccctca acagttattt
                                                                       60
tcagaggggc aagaagtgtt tcagggttct tggcccttgt ttgaccagtc gtcctaaccc
                                                                      120
tcatgtcttg ggtcattgtt gttataatct ggggttacct tttggaaggt catggggtac
                                                                      180
ccttttgcaa aagttatggg ccctctcctt ggaaactgca cacacaccat gcagcttaca
                                                                      240
attcagggag ttcacaggtc tacagaatcctggaaactct catgtccggt tctactcatt
                                                                     300
                                                                      360
gtagcttcag tggaaccttc tagcagtcct ttccagctcc tccccagctc ctcagctctg
                                                                      420
cttccctccg cccatcaagc cctcctcagc ccataaggtg ggccaggtgg cctgtgggga
                                                                    480
taaatcagag tgcccacaag tgcaggggcc caaagacatc ccagagcaaa cccaagaatc
                                                                      540
cctctacaag ccccagccca ctcagaagga tgcattttgc cccctctgtt tatttgtttg
tttttaatta tgaaagtagg gcatggtcat tgttgagaat gtgagaaatg cagagaagtt
                                                                      600
```

actgaggaat tacgactttt atcaattttg tgacctgtta aaatgttaaa aaggacatgt

4020

660

aaaatgatgc tttttgttta gggcgctgct gcttctggct taagatccta aatcaaagca

```
720
gctgccagat ctggacctaa gacttgcttc ccatcacctt acataaaaga aagagcactg
                                                                   780
qactaqqaat caaaqatctg aattcccatc aaatctctqc tattactagc ttttatctct
                                                                    840
atttatttat ttatctgtct atctatctag taccttttgt gaatatgagt gtttctcacc
                                                                  900
gaggecetee catetetett geceeegate etggaatgga ecaaataeet tgtttatga
                                                                    960
aggatacaga tggcatgtga ctgttgagaa tcactcaccc tcttagagcc atggtttcct
                                                                  1020
cttctataaa atagggatgt tcgtgcctat ttgctaatca tgagtgacaa tgacataagg
tacataaagc tgtactgcat gatgcaaaca taacatcata tttgtagggt tgttgctaat
                                                                  1080
aatactatcc atcagcaaag cagtcattca tttactcagt caaatactga tgcactggta
                                                                  1140
cattcagttt cctcttttgt aaaatgggga taaaaatagg acttagctca tagggtattt
                                                                  1200
                                                                  1260
aagattcagt gagttaatat atataaaata cttagagcag tccttggaac atattaagaa
                                                                 1320
ctcaatacat attagctagt tgagcaggct gtagtatttg ttccagccaagaaaagactg
                                                                  1380
ttctctaaca gcacaggaaa taaagatggg gttaggcacg acacggcagc aggacttacc
ttctgtctaa ttcagctggc agtcaaagaa agaattatta gaagcctatg agcttggtct
                                                                  1440
                                                                  1500
cccaaagatc tactgagtac agggggatat ttaaagaata aaaatcccta gacccactta
                                                                  1560
cagtacagga gagæaagaa gctgttcaca caataacaag tgctaaattc cttgattttt
                                                                  1620
atactgacag ctgaagtttt agagaagaga aggatcaata aagaccggaa tattaaagca
gacaggccta aaagaggatt ttagatttga taaagaattc ctccagttct cagagcaggg
                                                                  1680
                                                                 1740
actttggagg gtaacaactt ggatttcagt ccttgcctgc cactactga ttgtatgacc
1800
caaaaaaact aacaagggtg ataataatac ctacctccct acctcatagg gctgatgaga
                                                                  1860
agattaaaaa gtacctacat aaagcccttc tctgcgtgcc tggagcatgg caagggctcc
                                                                  1920
                                                                  1980
atgtgaacca ctatttttt ttttttttt aatgaaaagt catgggcagc accaaagctc
agaattttgg cagtaaggaa ttatgattct acattgaaat ttgccagaag gggagctgac
                                                                  2040
tgcctcatga qacatttttg aatgaggcca aaaaaggaaa caagtgtatc ctgggatttt
                                                                  2100
acgagatgct aggtatgtcc ttagcactta atcctcatgactaccctatg atgtaagtac
                                                                  2160
tatctgttgt ccctatttta cagttggcca aggtcacata gctgaaacgg acttctgtgt
                                                                  2220
                                                                  2280
gtcttctaac ttttgctttc aggtctggaa aaatgcaatg taaacctaga ccctctttga
                                                                  2340
aatactgaag atggtaatct tatcccttcc tcactttctg ttttctaaaa taacagtcct
                                                                  2400
tgttccttac aatgtctgtt ttccagattc ttagaagact ttttgcttat tttccataac
                                                                   2460
tctttacttg tgatccctga atgacaccgg gggtatagca gagaatgtcc atttcctcaa
                                                                  2520
agttcaaagg tcctacaaaa aatagttgct agcctggcat gatggtgtgt gcctgtggcc
                                                                  2580
tcagctacct gggaggctga ggcaggagga ttg&tgagc tgaggagttt gaggcgcagc
gtgatcgcgg ctcaccgcag cctcccgggc tcaagcattc ctctcgcctc agcctcctga
                                                                   2640
gtagctggga ccacagctcc actaattttg aagttttttt ggtagacatg aagtctccct
                                                                   2700
gtgttgcccg ggctggtctc aaactcctga cctcaagcag tcctcctgtc ttggcctctg
                                                                   2706
gaaatgctgg gattacaggc gtgagccact gtgctggcct cttttttctt tttcttttt
                                                                   2820
                                                                   2880
tttaaggttt ttatttgtta aatgggaagt ctgtgccatc aactgagcat tgtatttct
                                                                  2940
ccttagtaag agcctgggtg ggccactggg agagaactat acattaaatg taagtagcct
                                                                  3000
ctgggtagag agcccctggc tggtttcct tcctttctct ccttttctct actttggtgt
                                                                   3060
ctggaggcat ttcccagact ccagtttctt accaccctca cggattttgc tattgtatta
tcacctcctt tatcattccc aaaattgact ttatggagac tcattaaaag aaagaatcat
                                                                   3120
cggccgggag cggtggctca cgccacgaag gcgggcgaat cacctgaggt gcggagttcg
                                                                 3180
tgaccagcct gaccaaaaca gagaaacccc atctctacta aacaatacaa aattagctgg
                                                                   3240
                                                                   3300
gcgtggtggt gcacgcctgt aatcccagct actggggagg ctgggacggg agaatcactt
                                                                   3360
qaacccqqqa qqcaqaqqtt qcaqtqacca aaqatcqcac tattqcactc caqcctgggc
3408
<210> 80
<211> 1663
<212> DNA
<213> Homo sapiens
<400> 80
tcgacccacg cgtccgggca gtggggtgag ggcacacaag cagttcaggg tcccagcagg
                                                                    60
aagtggggct gcagggccgg ggtgggtcct gggcctggcc atcaggcagc ctagcaggtt
                                                                  120
                                                                    180
gttctgggca tggaggggc ctggtgtggc tgagggcatg cccagggctc cctggaggat
cccgctctgt gccctgccca ccctgtgcct ggggagccct ctgccctcac agcccaccca
                                                                    240
```

```
ccccattttc tatgaccaca gagctccgac ctggaagatg gctcacccag gaggtcccag
                                                                360
gageteteae teececagga eetgaggae acceagetet cagacaaagg etgeettgee
                                                                 420
qqcqqqqqqa qcccqaaaca gccctttgca gctctgcacc aggagcaggt tttgcggaac
                                                                 480
ccccatgtaa ggcttccccg gggtggggtc ctcccagccg tgggcctcag ggtgaccgat
                                                               540
cacagggaga gtggctccct gccctgggca cccctgcgg tggccccgac gacagtgag
                                                                 600
gagtgaccac aaggtetetg eccaeagtge teggggtgeg gtgtetggge tgegaagtgg
atcccctcc tttcttgggc actgcagcag cttggggggc tttttggacg tggatgtgcc
                                                                 660
                                                                 720
tggtcctggt ttcccgaggg cctttacagt ggatgaggag gtgaacacag gagtcctgag
agcaagcacc acctegggd ttgttgtaga aacaatggcc eggaceccag geeggageeg
                                                                780
tggcttggcc tcctgggtgt gtcttggcat ctgaaatgca ggctacccac accggctcac
                                                                 840
                                                                 900
960
gggttccctc aggggagccg gccggagccc gagccttccc ccttctccag gacgcaggcc
                                                                1020
                                                                1080
tgagcagcgg ggagccgccc gagaaggagc ggcggcgcct caaagagagt tttgagaact
accgcaggaa gcgcgccctc aggaagatgc agaaaggatg gcggcagggg gaggaggacc
                                                                1140
                                                               1200
gggagaacac cacgggcagc gacaacaccg acactgaggg ctcctagccg cagcagcgca
ggccccgacc agggcacacc caccggcccg gcctcctgcc acccgggggt gccgacgccc
                                                                1260
                                                               1320
tggggcgcag acttccccga gccgtcgctg acttggcctg gaacgaggaa tctggtgccc
                                                               1380
tgaaaggccc agccggactg ccgggcattg gggccgtttg ttagcggca ctcattttgc
                                                                1440
ggaggccatg cgggtgctca ccaccccat gcacacgcca tctgtgtaac ttcaggatct
qttctqtttc accatgtaac acacaataca tgcatgcatt gtattagtgt tagaaaacac
                                                                1500
1560
                                                                1620
1663
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
<210> 81
<211> 2343
<212> DNA
<213> Homo sapiens
<400> 81
agtcaggact cccaggacag agagtgcaca aactacccag cacagcccc tccgccccct
                                                                 60
ctggaggctg aagagggatt ccagcccctg ccacccacag acacgggctg actggggtgt
                                                                 120
ctgccccct tggggggggg cagcacaggg cctcaggcct gggtgccacc tggcacctag
                                                                 180
aagatgcctg tgccctggtt cttgctgtcc ttggcactgg gccgaagccc agtggtcctt
                                                                 240
tctctggaga ggcttgtggg gcctcaggac gctacccact gctctccggg cctctcctgc
                                                                 300
                                                                 360
cgcctctggg acagtgacat actctgcctg cctggggaca tcgtgcctgc tccgggcccc
                                                                 420
qtgctqqcqc ctacqcacct gcagacagag ctgqtqctga ggtqccagaa ggagaccgac
                                                                480
tgtgacctct gtctgcgtgt ggctgtccac ttggccgtgcatgggcactg ggaagagcct
gaagatgagg aaaagtttgg aggagcagct gacttagggg tggaggagcc taggaatgcc
                                                                 540
tctctccagg cccaagtcgt gctctccttc caggcctacc ctactgcccg ctgcgtcctg
                                                                 600
                                                                 660
ctggaggtgc aagtgcctgc tgcccttgtg cagtttggtc agtctgtggg ctctgtggta
                                                                 720
tatgactgct tcgaggctgc cctagggagt gaggtacgaa tctggtccta tactcagccc
                                                                 780
aggtacgaga aggaactcaa ccacacacag cagctgcctg actgcagggg gctcgaagtc
tggaacagca tcccgagctg ctgggccctg ccctggctca acgtgtcagc agatggtgac
                                                                 840
                                                                900
aacgtgcact tcggcctctc cctgtactgg aat@ggtcc agggcccccc aaaaccccgg
                                                                 960
tggcacaaaa acctgactgg accgcagatc attaccttga accacacaga cctggttccc
                                                                1020
tgcctctgta ttcaggtgtg gcctctggaa cctgactccg ttaggacgaa catctgcccc
ttcagggagg acccccgcgc acaccagaac ctctggcaag ccgcccgact gcgactgctg
                                                                1008
                                                                1140
accetgeaga getggetget ggaegeaceg tgetegetge eegeagaage ggeactgtge
tggcgggctc cgggtgggga cccctgccag ccactggtcc caccgctttc ctgggagaac
                                                                1200
gtcactgtgg acaaggttct cgagttccca ttgctgaaag gccaccctaa cctctgtgtt
                                                                1260
                                                               1320
caggtgaaca gctcggagaa gctgcagctg caggagtgct tgtgggctga ctccctgggg
                                                                1380
cctctcaaag acgatgtgct actgttggag acacgaggcc cccaggacaa cagatccctc
tgtgccttgg aacccagtgg ctgtacttca ctacccagca aagcctccac gagggcagct
                                                                1440
cgccttggag agtacttact acaagacctg cagtcaggcc agtgtctgca gctatgggac
                                                               1500
gatgacttgg gagcgctatg ggcctgcccc atggacaaat acatccacaa gcgctgggcc
                                                                1560
```

300

```
ctcgtgtggc tggcctgcct actctttgcc gctgcgcttt ccctcatcct ccttctcaaa
                                                                    1620
aaggatcacg cgaaagggtg gctgaggctc ttgaaacagg acgtccgctc gggggcggcc
                                                                    1680
                                                                   1.740
gccaggggcc gcgcggctct gctctctac tcagccgatg actcgggttt cgagcgcctg
gtgggcgccc tggcgtcggc cctgtgccag ctgccgctgc gcgtggccgt agacctgtgg
                                                                    1800
                                                                    1860
agccgtcgtg aactgagcgc gcaggggccc gtggcttggt ttcacgcgca gcggcgccag
accetgeagg agggeggegt ggtggtettg etettetete eeggtgeggt ggcgtgtge
                                                                   1920
                                                                    1980
agcgagtggc tacaggatgg ggtgtccggg cccggggcgc acggcccgca cgacgccttc
                                                                    2040
cgcgcctcgc tcagctgcgt gctgcccgac ttcttgcagg gccgggcgcc cggcagctac
gtgggggcct gcttcgacag gctgctccac ccggacgccg tacccgccct tttccgcacc
                                                                    2100
                                                                    2160
gtgcccgtct tcacactgc ctcccaactg ccagacttcc tgggggccct gcagcagcct
                                                                    2220
cgcgccccgc gttccgggcg gctccaagag agagcggagc aagtgtcccg ggcccttcag
                                                                    2280
ccagccctgg atagctactt ccatcccccg gggactcccg cgccgggacg cggggtggga
ccaggggcgg gacctggggc gggggacggg acttaaataa aggcagacg tgttttcta
                                                                   2340
                                                                    2343
<210> 82
<211> 3091
<212> DNA
<213> Homo sapiens
<400> 82
aaaccggaaa gtttgtagga aaattgctgc acatggcctt tgcagaaaag agagccttca
                                                                      60
                                                                     120
aaacctctta cattccagta gaaaactctc tctgcaagtc cttaactttg ttcactcatt
ccaggaaggt gcttcaatat tggatattca cacagagccc agtttttcaa gtttgctttc
                                                                     180
acagtcatcg tatgctgaca tgggtgttcc acttcctgca aaaaacttaa tatttaaaga
                                                                     240
tggtgtctta tcagaakgga gtggacggtc accttcctca cttcttattgctaatctcca
                                                                    300
                                                                     360
tttgcaataa tttggttaca ccatttgttg ctcacacttt ctgccttttt tctttcttaa
                                                                     420
cgttagcttt atagtgtcag ccactaaaaa gcatcctgct gctgcagtgc aattcttgct
                                                                     480
taactaatat taaaagttgg ggaacatatt catgttttct gaagttttgc tcattattgc
                                                                     540
acatcttatt gcgacaaagt gctttttagc agccagcact gtatttttta ccttgagaca
atctgcattt cttttataaa actaagtata tactttatag gctttatgat gactgttatg
                                                                     600
tttataagca gtcactatga aaattgcaat ggtaatttta tatgttagtt tatcaaacat
                                                                     660
                                                                    720
aaatcttgtt taattttata ttttgttacc tatactttgg gggacaagg gaagagatgg
aactcttcct ctgaaaaggc ttcttggtac ttaaagtagt aaaactataa aacaataaac
                                                                     780
                                                                     840
atccagtatt gagagatgat atgatagggc attatgaatt cctatgggtg tctgtaaatt
atgtatgtca gttggacatt gtagaaggta tgtaaatcag catagttgtg tataacttaa
                                                                     900
                                                                     960
ccttgattta taaggtctta agattatgac tattcattga catctcatga gaagctttag
                                                                    1020
aagactttct atttttaaac accatttata tgtggacttc tgttgtcact gactttgggc
tttatatttt catagagtct ttatggaaaa aatagaattt attttccact cttgtagcta
                                                                    1080
tagctgctgc acactttcac cctgatttat ttttttgtt cttagctttg atgttttcaa
                                                                    1140
accaaggatt gtgattttag gttagaatta catattagaa gcattaagac tatgtctttg
                                                                    1200
gatcagaatg ctttagtgat aaacctactt tgaagacata ctcttaagca atctggatct
                                                                    1260
taaatttatg tgaatacttt tttagaaaat gataaagaaa aatggaatta cttcaaagtg
                                                                    1320
tttcttgagt cattgattct tttagcatct caaatgttaa ttagaataat tggaatcact
                                                                    1380
                                                                    1440
1500
ctcctcttac agggtaatgg tttgctagtt taaaactgta accaaacgaa ctggtcagac
                                                                    1560
aacatatatc taaaacactt aaaatgttag gaagtttggg aatgttataa cctaaacgtt
tttgctggta actttttgtt atttatagat atttgtgtat ttaacataca tacttcagga
                                                                     1620
aatatatgcc tttcctaaaa cttaaccatg cattcaatac catggcctat ctatagaatt
                                                                     1680
gaatattttg gaccatgtta tctgtggcac agtcagtgct gtgtttgagg taaatgcagt
                                                                     1470
aacggttagt tttctacttt gtcttataga aggtagaaac catgtgtatg ttatgtttgt
                                                                     1800
                                                                     1860
ctataaaaga aaaaatacta atattaaata atttcttacg actctgagtc actcacttat
                                                                     1920
ttttccaata attgatattg tacattccta gtgccattag gtatgtatgt atgtaacttt
tacagttttt cagctgaaag ttgtaagtat ttttttttt tgatcggggc tctttaatct
                                                                    1980
                                                                     2040
cattttaatt tcctttgttt gaactgtagt tatttattcc tatattaacc atctaaacca
                                                                     2100
actgtaatga catgtacact aatacagaat tgaacatttg tagttgttgg cagtgaaccc
agttgttggt gaatttaaag cttaaaatat gggaatgatt tgctgctata tttccttt頭
                                                                   2160
```

```
2220
gagagaaagg aggaagaaat agaacctaat agtgatcatg aattttaggg aaagtaccga
                                                                     2280
agaaccatgg ggtcccctct ggtttcttgt gttgaatgag gcaagggtaa tcatctgatt
                                                                     2340
ccgagctgaa gacctctggt cctcttaagg agggagagtg catttttaga gcttttagca
aaatgtgaaa agctgatgtt tægccttgc tttgtgaatt tggctttgtt ttacttatac
                                                                    2400
                                                                     2460
attaactcat gtaatctctt aaatcttaca agcattgatc catttcaaca aaaaggtaaa
                                                                     2520
tttaaaatgc agactttgtt atttgccaaa gaagattcat gaaaaattta cgtccaatta
ttttgcaaat agttaatttc atttggcttt ttaccatgtt ccttcctttc ttttcccgc
                                                                    2580
ttccttaatg taatttaaac cctggcaaac attctttaga aaccaagagg aaagaaagaa
                                                                     2640
caaatatcaa aaaagacata gaatttaata ttgatacaat ttcacctcta aaatggattt
                                                                     2700
                                                                     2760
gaagaaatgc aactttatat caaaaaatgt catctgattt cctttgtttc ttttttaaat
tatgtaatca gatgatttta tgtttttttt tcaggggagc ggaatattgg tttcttttac
                                                                     2820
ttgttgtttt cagttttctc tgccattcat gtttcttttt tgtgttcagt gtttcaaata
                                                                     2880
caatttgtat ttaaggattt taaaatacca aactgtaact gagtacagtg gatcgttttc
                                                                     2940
tgttaggatg ttaatattat acaatgaaat ctataaagtg ttgtcaatt gattattgac
                                                                    3000
                                                                     3060
acatataaca tgtttacaaa taaactgtgg tattgatcaa gttactatga aaaaaaaaa
                                                                     3091
aaacccgggg ggggccccgg aacccaatcc c
<210> 83
<211> 1396
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (668)..(668)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (739)..(739)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (751)..(751)
<223> n equals a,t,q, or c
<400> 83
gctggtaacc aggtggaacc atttcacgtg tccctccccagctgcctcag tccccttccc
                                                                      60
                                                                      120
cacctgggcc acagcatggg ggttccctca cccaccgcct ggccctctct tgcctcgttc
                                                                      180
cacactcaga aaaaagcaag gatcagacaa gaagaagagt ccccacccct cccgtccccg
caggagetgg egttetetge getaagggtg ttttttagag tgatgttttt teteetetgt
                                                                      240
ctcgttgccc tggagatcaa agggttcact ttctcagcga ggggtgccag ggacagattt
                                                                      300
ctaaacaagt ctggaccgca gccaggaaaa aagatgaaaa caacacactg taaacagcct
                                                                      360
ctattcagca aacctggtca ggtcagaggg gctytgagga aagcaagagg gaggcaggag
                                                                      420
gagagggaag cggtggggat gtggggggg cgggggcaca gttatcctga atacataaaa
                                                                     480
acaagtgagg tcactgaggt cagggatagt cccaaacatc cccaagtcca gcctttcctg
                                                                      540
acaaccaggg ttacatgcag agtcccaggc catctgcagg ttttggaggc cctgtgcggg
                                                                      600
gcctgggggt ctatgtttaa acacgccctt gtggtggtcc aagtycccag aascagggga
                                                                      660
agggcgantc tgggctctga atggcargtg gggcagctcc amctcatcct cctacatggc
                                                                      720
                                                                      780
acccagcact gggctgcang cytggtcccc nacttgccgc aggaatcaat cctgccagct
                                                                      840
cagagccscc gtgtgacaaa caccccagga acagaggaga catgagaaag ggactcacca
                                                                     900
gcccactgcc caggatgtag aagtcgtcgcaggagaagat ggtgccgggg taggaggaga
agaccagett gttgccggga accagegggt agtcccetgt gcaggcagag egagccaggg
                                                                      960
                                                                     1020
atgctggtca gacaggcaca ggtggaggcc cctgcaccct acctaacaag acacaggcac
aggggcacag gcaggcctyc gaggaagccc ccactgtgtc ctttttgtca tttagcaaat
                                                                   1080
gaggtcattg ggcatataaa agtgcatata cgtgcaagta aaaataaaag ctagcagcaa
                                                                     1140
```

```
1200
aacttatata gttggsccty catgtccgtg ggttccacat ccttggattc aatsgamtgg
                                                                     1260
ggaccaaaaa tactaggaaa aaaacatgat taaaaagaaa caacacagct gggtgcagtg
                                                                    1320
gytsacacct gtaatccctg cacttggga ggccaaggca ggcggatcac gaggtcagga
                                                                     1380
qaccaaqacc atcctggcta acacggtgaa acccgtctct actaaaaata caaaaaaaaa
                                                                     1396
aaaaaagggc ggccgc
<210> 84
<211> 1748
<212> DNA
<213> Homo sapiens
<400> 84
                                                                       60
agacgttccc tcgcggccct ggcacctcca accccagata tgctgctgct gctgctgctg
cccctgctct gggggaggga gagggtggaa ggacagaaga gtaaccggaa ggattactcg
                                                                      120
                                                                      180
ctgacgatgc agagttccgt gaccgtgcaa gagggcatgt gtgtccatgt gcgctgctcc
ttctcctacc cagtggacag ccagætgac tctgacccag ttcatggcta ctggttccgg
                                                                     240
                                                                      300
gcagggaatg atataagctg gaaggctcca gtggccacaa acaacccagc ttgggcagtg
                                                                      360
caggaggaaa ctcgggaccg attccacctc cttggggacc cacagaccaa aaattgcacc
                                                                     420
ctgagcatca gagatgccag aatgagtgat gcggggagat acttctttcg tatgggaaa
                                                                      480
qqaaatataa aatggaatta taaatatgac cagctctctg tgaacgtgac agccttgacc
                                                                      540
cacaggecca acatecttat ecceggtace etggagtetg getgetteca gaatetgace
                                                                      600
tgctctgtgc cctgggcctg tgagcagggg acgcccccta tgatctcctg gatggggacc
                                                                      660
totgtgtccc ccctgcaccc ctccaccacc cgctcctcag tgctcaccct catcccacag
ccccagcacc acggcaccag cctcacctgt caggtgacct tgcctggggc cggcgtgacc
                                                                      720
acgaacagga ccatccaact caatgtgtcc taccctcctc agaacttgac tgtgactgtc
                                                                      780
ttccaaggag aaggcacagc atccacagct ctggggaaca gctcatctctttcagtccta
                                                                     840
                                                                      900
gagggccagt ctctgcgctt ggtctgtgct gttgacagca atccccctgc caggctgagc
                                                                      960
tggacctgga ggagtctgac cctgtacccc tcacagccct caaaccctct ggtactggag
                                                                     1020
ctgcaagtgc acctggggga tgaaggggaa ttcacctgtc gagctcagaa ctctctgggt
                                                                     1080
tcccagcacg tttcctgaa cctctccctg caacaggagt acacaggcaa aatgaggcct
gtatcaggag tgttgctggg ggcggtcggg ggagctggag ccacagccct ggtcttcctc
                                                                     1140
                                                                     1200.
teettetgtg teatetteat tgtagtgagg teetgeagga agaaategge aaggeeagea
gcggacgtgg gagacatagg catgaaggat gcaaacacca tcagggctc agcctctcag
                                                                    1260
ggtaacctga ctgagtcctg ggcagatgat aacccccgac accatggcct ggctgcccac
                                                                     1320
                                                                     1380
tcctcagggg aggaaagaga gatccagtat gcacccctca gctttcataa gggggagcct
caggacctat caggtcaaga agccaccaac aatgagtact cagagatcaa gatccccaag
                                                                     1440
taagaaaatg cagaggctcg ggcttgtttg agggttcacg acccctccag caaaggagtc
                                                                     1500
                                                                     1560
tgaggctgat tccagtagaa ttagcagccc tcaatgctgt gcaacaagac atcagaactt
                                                                     1620
attectettg tetaactgaa aatgeatgee tgatgaceaa acteteeett teeceateea
                                                                    1680
atoggtocac actococgoc otggoototg gtaccoaccattotoctotg tacttotota
                                                                     1740
aggatgacta ctttagattc cgaatatagt gagattgtaa cgtgaaaaaa aaaaaaaaa
                                                                     1748
aaaaaaa
<210> 85
<211> 2679
<212> DNA
<213> Homo sapiens
<400> 85
                                                                       60
ccacgcgtcc gcctcagcgg ccgggcccac ggccccgagc agccatgctg ggcgcgcggg
                                                                      120
cctggttggg ccgcgtcctt ctgctgcccc gcgccggtgc aggcctcgcc gcaagccgca
                                                                      180
ggtgtcctgg agtctggccc aggacctggc cccacaggag tcccagcagg ggtagctcct
cccgggacaa ggaccgaagt gcgacggtca gtagttcagtgcccatgcct gctggaggga
                                                                     240
                                                                      300
aaggaagcca teetteatet acaeeecaga gggteeecaa eegeetgate caegagaagt
                                                                      360
caccatacct cctacaacat gcctacaatc ctgtggactg gtacccctgg ggacaggaag
                                                                      420
ccttcgacaa ggccaggaag gaaaacaagc cgattttcct ctcagtcggg tactccacct
gccactggtg ccacatgatg gaagaggagt ccttccagaa tgaggagatt ggccgcctgc
                                                                      480
```

```
tcagtgagga ctttgtgagt gtgaaggtag accgtgagga gcggcctgac gtggacaagg
                                                                      540
                                                                      600
tgtacatgac gttcgtgcag gccaccagca gcggcggggg ctggcccatg aatgtgtggc
                                                                     660
tgactcccaa cctccagccc tttgtcgggg gcaccattt ccctcctgag gatggcttga
                                                                      720
cccgagtcgg cttccgcaca gtgttgctga gaatacgaga acagtggaaa cagaacaaga
                                                                      780
acaccctqct agaaaatagc cagcgtgtca ccactgccct gctggcccga tcagagatca
                                                                      840
gcgtgggtga ccgccagctg ccgccatctg ccgccaccgt gaacaatcgc tgcttccagc
                                                                      900
agctggatga gggctatgat gaggaatacg gtggcttcgc tgaggccccc aagtttccca
                                                                      960
cgccggtgat cctgagcttc ctgttctcct actggctcag ccatcgactg actcaggatg
gctctcgggc ccagcagatg gccttgcata ccctgaaaat gatggctaac gggggcatcc
                                                                     1020
qggaccatgt ggggcagggc tttcaccgctactccacaga ccgccagtgg cacgtccctc
                                                                    1080
                                                                     1140
actttgagaa gatgctctat gaccaggcac agctcgctgt ggcctattcg caggccttcc
agctctctgg tgatgaattc tactctgacg tggccaaagg catcctgcag tacgtggctc
                                                                     1200
ggagcctgag ccaccggtcc ggaggcttct atagcgcaga agatgcagac tcgccccag
                                                                   1260
agcggggcca gcggcccaaa gagggcgcct actatgtgtg gacggtcaaa gaggttcagc
                                                                     1320
                                                                     1380
agetectece ggageetgtg ttgggtgeea eegageeget gaeeteagge eageteetea
                                                                     1440
tgaagcacta cggcctcaca gaggctggta acatcagccc cagtcaggac cccaaggggg
agctgcaggg ccagaatgtg ctgæcgtcc ggtactcgct ggagctgact gctgcccgct
                                                                    1500
                                                                     1560
ttggcttgga tgtggaggcc gtgcggacct tgctcaattc agggctggag aagctcttcc
                                                                     1620
aggcccggaa gcatcggccc aagccgcacc tggacagcaa gatgctggct gcctggaatg
                                                                    1680
qcttqatqqt qtcaqgctat gctgtgactg gggctgtcct gggccaagac aggcqatca
                                                                     1740
actatgccac caatggtgcc aagttcctga agcggcacat gtttgatgtg gccagtggcc
                                                                     1800
gcctgatgcg gacctgctac accggccctg gggggactgt ggagcacagc aacccaccct
                                                                     1860
qctqqqqctt cctqqaqqac tacgccttcg tggtgcgggg cctgctggac ctgtatgagg
cctcacagga gagtgcgtgg ctcgagtggg ctctgcggct gcaggacaca caggacaggc
                                                                     1920
tcttttggga ctcccagggt ggcggctact tctgcagtga ggctgagctg ggggctggcc
                                                                     1980
tgcccctgcg tctgaaggac gaccaggatg gagcagagcc cagcgccaat tccgtgtcag
                                                                     2040
                                                                    2100
cccacaacct qctccggctg catggcttca cgggccacaa ggactggatggacaagtgtg
                                                                     2160
tqtqcctatt qaccqccttt tccgagcqca tqcgtcgtgt cccggtggcg ttgcccgaga
                                                                     2220
tggtccgcgc cctctcagcc cagcagcaga ccctcaagca gatcgtgatc tgtggagacc
                                                                     2280
gtcaggccaa ggacaccaag gccctggtgc agtgcgtcca ctctgtctac attcctaaca
                                                                     2340
aggtgctgat tctggctgat ggggacccct cgagcttcct gtcccgccag ctgcctttcc
                                                                     2400
tgagtaccct ccgacggttg gaagaccagg ccactgcata tgtgtgtgag aatcaagcct
                                                                     2460
gctcagtgcc catcactgat ccctgcgaat tacgaaaact actacatcca tgactgcccc
aacccccttg gggtggggca gaaggtgaag catcccaact gacagagac tcaggccctg
                                                                    2520
                                                                     2580
cagggcccta tagaacctgt ggccatccct gagcaccctg ccaccaggtg acctcggcca
tactcactgc cccccttggg cacccactca ccctagaata aacttaacag tgtcccgtgg
                                                                     2640
                                                                     2679
taaaaaaaaa aaaaaaaaa aaaaaaaaa ggcggccgc
<210> 86
<211> 766
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (670)..(670)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (713)..(713)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (721)..(721)
```

<223> n equals a,t,g, or c

```
<220>
<221> misc_feature
<222> (728)..(728)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (731)..(731)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (756)..(756)
<223> n equals a,t,g, or c
<400> 86
ggcgagacgc gttcaccacc atatgcactg ttgtcaactc ccctggagat gcgcccaagc
                                                                       60
cccacaggaa gccttcctcc tctgcctcct cttcctcatc ctcgtcctcg ttctccttgg
                                                                      120
atgcagccgg ggcctccctg gccacactcc ctggaggctc catcctgcag ccgcggccct
                                                                      180
                                                                     240
ccttgcccct ctcctccacg atgacttgg ggcctgtggt ttccaaggcc ctgagtacct
                                                                      300
cttgccttgt ttgctgcctc tgccaaaacc cggccaactt caaggacctt ggggacctct
                                                                      360
gtgggcccta ctaccctgaa cactgcctcc ccaaaaagaa gccaaaactc aaggagaagg
                                                                     420
tgcggccaga aggcacctgt gaggaggcct cgctgccgct tgagagaaca ctcaaggtc
                                                                      480
ccgagtgtgc agctgccgcc actgccggga agccccccag gcctgacggc ccagctgacc
eggeeaagea gggeecaetg egeaceagtg eeeggggeet gteeeggagg etgeagaget
                                                                      540
gctactgctg tgatggccgg gaggatgggg gcgaggaggc agccccagcc gacaagggtc
                                                                      600
                                                                      660
gcaaacatga gtgcagcaæ gaggctccgg cagagcccgg cggggaggcc caggaagcac
                                                                      720
tgggtgmatn aagcctgttm ccgtgttgga ccgggggggt tttaactggt ggncggggaa
                                                                      766
ntcttttngg nttgcaagag gccaattaaa gttggncctt ggaaaa
<210> 87
<211> 2803
<212> DNA
<213> Homo sapiens
<400> 87
                                                                       60
cccacgcgtc cgcgacccac gcgtccgggg ggaggtaact gcagtaagtc ccgcttggcc
ctggagtcca cgcggatttt cgaagctggg gctggcaaga ggccgctgga caccacgctc
                                                                      120
cagtcgtcag cccacttcct agctgaacag cgcgaggcgg cggcagcgag ccgggtccca
                                                                      180
ccatggccgc gaattattcc agtaccagta cccggagaga acatgtcaaa gttaaaacca
                                                                     240
                                                                      300
gctcccagcc aggettcctg gaacggctga gcgagacctc gggtgggatg tttgtggggc
                                                                      360
tcatggcctt cctgctctcc ttctacctaa ttttcaccaa tgagggccgc gcattgaaga
                                                                     420
cggcaacctc attggctgag gggctctcgc ttgtggtgtc tcccgacagcatccacagtg
                                                                      480
tggctccgga gaatgaagga aggctggtgc acatcattgg cgccttacgg acatccaagc
ttttgtctga tccaaactat ggggtccatc ttccggctgt gaaactgcgg aggcacgtgg
                                                                      540
                                                                      600
agatgtacca atgggtagaa actgaggagt ccagggagta caccgaggat gggcaggtga
                                                                      660
agaaggagac gaggtattcc tacaacactg aatggaggtc agaaatcatc aacagcaaaa
                                                                      720
acttcgaccg agagattggc cacaaaaacc ccagtgccat ggcagtggag tcattcatgg
caacagecee etttgteeaa attggeaggt tttteetete gteaggeete ategaeaaag
                                                                      780
                                                                     840
tegacaactt caagteetg ageetateea agetggagga eeetatgtg gacateatte
gccgtggaga ctttttctac cacagcgaaa atcccaagta tccagaggtg ggagacttgc
                                                                      900
gtgtctcctt ttcctatgct ggactgagcg gcgatgaccc tgacctgggc ccagctcacg
                                                                      960
tggtcactgt gattgcccgg cagcggggtg accagctagt cccattctcc accaagtctg
                                                                     1020
                                                                     1080
gggatacett actgeteetg caccaegggg actteteage agaggaggtg ttteatagag
                                                                     1140
aactaaggag caactccatg aagacctggg gcctgcgggc agctggctgg atggccatgt
                                                                     1200
tcatgggcct caaccttatg acacggatcc tctacacctt ggtggactgg tttcctgttt
```

```
tccgagacct ggtcaacatt ggcctgaaag cctttgccttctgtgtggcc acctcgctga
                                                                  1260
ccctgctgac cgtggcggct ggctggctct tctaccgacc cctgtgggcc ctcctcattg
                                                                   1320
                                                                   1380
ccggcctggc ccttgtgccc atccttgttg ctcggacacg ggtgccagcc aaaaagttgg
agtgaaaaga ccctggcacc cgcccgacac ctgcgtgagc cctaggatcc aggtcctctc
                                                                   1440
                                                                   1500
tcacctctga cccagctcca tgccagagca ggagccccgg tcaattttgg actctgcact
                                                                   1560
ccctctcctc ttcaggggcc agacttggca gcatgtgcac caggttggtg ttcaccagct
catgtcttcc ccacatctct tcttgccagt aagcagcttt ggtgggcagc agcagctcat
                                                                   1620
                                                                  1680
gaatggcaag ctgacagctt ctcctgctgt ttcctc tcttggactg agtgggtacg
                                                                   1740
gccagccact cagcccattg gcagctgaca acgcagacac gctctacgga ggcctgctga
taaagggctc agccttgccg tgtgctgctt ctcatcactg cacacaagtg ccatgctttg
                                                                   1800
ccaccaccac caagcacatc tgtgatcctg aagggcggcc gttagtcatt actgctgagt
                                                                   1806
cctgggtcac cagcagacac actgggcatg gaccctcaa agcaggcaca cccaaaacac
                                                                   1920
                                                                   1980
aagtctgtgg ctagaacctg atgtggtgtt taaaagagaa gaaacactga agatgtcctg
                                                                   2040
aggagaaaag ctggacatat actgggcttc acacttatct tatggcttgg cagaatcttt
gtagtgtgtg ggatctctga aggccctatt taagtttttc ttcgttactt tgctgcttca
                                                                   2100
2160
                                                                   2220
aaaacactta atatttcaga ctgttacagg aaacaccctt tagtctgtca gttgaattca
gagcactgaa aggtgttaaa ttggggtatg tggtttgatt gataaaaagt tacctctcag
                                                                  2280
                                                                   2340
tattttgtgt cactgagaag ctttacaatg gatgcttttg aaacaagtat cagcaaaagg
                                                                   2400
atttgttttc actctgggag gagagggtgg agaaagcact tgctttcatc ctctggcatc
                                                                   2460
ggaaactccc ctatgcactt gaagatggtt taaaagatta aagaaacgat taagagaaaa
ggttggaagc tttatactaa atggctcct tcatggtgac gccccgtcaa ccacaatcaa
                                                                   2520
                                                                   2580
gaactgaggc ctgaggctgg ttgtacaatg cccacgcctg cctggctgct ttcacctggg
                                                                   2640
agtgctttcg atgtgggcac ctgggcttcc tagggctgct tatgagtggt tctttcacgt
qttqtqtcca tagctttagt cttcctaaat aagatccacc cacacctaag tcamgaatt
                                                                  2700
tctaagttcc ccaactactc tcacaccctt ttaaagataa agtatgttgt aaccaaaaaa
                                                                   2760
                                                                   2803
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
<210> 88
<211> 2181
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (5)..(5)
<223> n equals a,t,g, or c
<400> 88
gtacnggatt cccgggtcga cccacgcrtc cggcaggcag aggggcagtg ggcgcgggga
                                                                     60
agatgattct gggcctcccc catctactgt cattaaccaa aatgaaacat ttgccaacat
                                                                    120
                                                                   180
aatttttaaa cctactgtag tacaacaagc caggattgcc cagaatggaa ttttggaga
                                                                    240
ctttatcatt agatatgacg tcaatagaga acagagcatt ggggacatcc aggttctaaa
                                                                    300
tggctatttt gtgcactact ttgctcctaa agaccttcct cctttaccca agaatgtggt
                                                                    360
attegtgett gacageagtg ettetatggt gggaaceaaa eteeggeaga eeaaggatge
cctcttcaca attctccatg acctccgacc ccaggaccgt ttcagtatca ttggattttc
                                                                    420
caaccggatc aaagtatgga aggaccactt gatatcagtc actccagaca gcatcaggga
                                                                    480
                                                                    540
tgggaaagtg tacattcacc atatgtcacc cactggaggc acagacatca acggggtcct
                                                                   600
gcagagggcc atcaggctcc tcaacaagta cgtggcccac agtggcattggagaccggag
cgtgtccctc atcgtcttcc tgacggatgg gaagcccacg gtcggggaga cgcacaccct
                                                                    660
                                                                    720
caagatcete aacaacacce gagaggccgc ccgaggccaa gtctgcatct tcaccattgg
catcggcaac gacgtggact tcaggctgct ggagaaactg tcgctggaga actgcggcct
                                                                    780
cacacggcgc gtgcacgagg aggaggacgc aggctcgcag ctcatcgggt tctacgatga
                                                                    840
aatcaggacc ccgctcctct ctgacatccg catcgattat ccccccagct cagtggtgca
                                                                    900
                                                                    960
ggccaccaag accetgttcc ccaactactt caacggctcg gagatcatca ttgcggggaa
                                                                  1020
gctggtggac aggaagctgg atcacctgca cgtggaggtc accgcagca acagtaagaa
attcatcatc ctgaagacag atgtgcctgt gcggcctcag aaggcaggga aagatgtcac
                                                                   1080
```

```
1140
aggaagcccc aggcctggag gcgatggaga gggggacmcc aaccacatcg agcgtctctg
                                                                     1200
gagctacctc accacaaagg agctgctgag ctcctggctg caaagtgacg atgaaccgga
                                                                    1260
gaaggagcgg ctgcggcagc gggcccaggc cctggctgtg agctaccgct tcctcactcc
cttcacctcc atgaagctga gggggccggt cccacgcatg gacggcctgg aggaggccca
                                                                     1320
                                                                     1380
cggcatgtcg gctgccatgg gacccgaacc ggtggtgcag agcgtgcgag gagctggcac
                                                                    1440
gcagccagga cctttgctca agaagccata ccagccaagaattaaaatct ctaaaacatc
agtggatggt gatccccact ttgttgtgga tttccccctg agcagactca ccgtgtgctt
                                                                     1500
caacattgat gggcagcccg gggacatcct caggctggtc tctgatcaca gggactctgg
                                                                     1560
tgtcacagtg aacggagagt taattggggc acccgccct ccaaatggcc acaagaaaca
                                                                     1620
                                                                     1680
gcgcacttac ttgcgcacta tcaccatcct catcaacaag ccagagagat cttatctcga
gatcacaccg agcagagtca tcttggatgg tggggacaga ctggtgctcc cctgcaacca
                                                                     1740
gagtgtggtg gtggggagct ggggkctgga ggtgtccgtg tctgccaacg ccaatgtcac
                                                                     1800
cgtcaccatc cagggctcca tagcctttgt catctcatc cacctctaca aaaagccggc
                                                                    1860
gcccttccag cgacaccacc tgggtttcta cattgccaac agcgagggcc tttccagcaa
                                                                     1920
                                                                     1980
ctgccacgga ctgctgggtc agttcctgaa tcaggatgcc agactcacag aagaccctgc
                                                                     2004
agggeeeage cagaacetea eteaceetet geteetteag gtgggagagg ggeetgagge
cgtcctaaca gtgaaaggcc accaagtccc agtggtctgg aagcaaagga agatttacaa
                                                                     2100
                                                                     2160
cggggaagag cagwtagayt gytggtttgc caggaacatg ccgccaaact gattgacggg
                                                                     2181
gagtacagga ttacctggca t
<210> 89
<211> 2207
<212> DNA
<213> Homo sapiens
<400> 89
                                                                       60
ccacgcgtcc ggaaaaaggg aaaagatgcc gtgtaaaatc tcgttctgtg tctgaattgc
cgtagggctc agatcttcat ttgaggttct gtgtctgaat tgccgtaggg ctcagatctt
                                                                      120
catttgaggt tatgttctat aagttaacgt tgatcttgtg tgagctttcg gtagctggag
                                                                      180
                                                                      240
taacacagge ggcctcacag cgacctctcc agcgccttcc aaggcacatc tgcagccagc
                                                                      300
gtagctcctc ctgggagatg cctcctcaag gccctgctcc agaccacgtg gggagggcct
gacagccaat tcccaggctg tccccacct tggagagtga ccctaaacgc tagacagatg
                                                                      360
gggaatggga aagaaaagaa agctgcagacctcaagttaa aattccctca aaaacgtttt
                                                                     420
tatttatctg ctttttctga aaggataaag gctttttgaa aattattttc taacaaataa
                                                                      480
catgaacact tctagaaacc ctagaaaaac acaaagtatt caaaatagaa agaaaaatta
                                                                      540
cccattactc tttaagccag cattatccat tgcggtgctt ttggagttgg gtgaggccgt
                                                                    600
agcctctgcc aagtcaagga gcccggtggt ggctgtggca ttcctgcagg gttgtttttt
                                                                      660
tttctttgag atggagtctc actcttgtca ccccagctgg aatgtggtgg tgtaaacagc
                                                                      720
                                                                      780
tcactgcage cttgaccctg aggetcaage gateettetg cettggeete etgagtaget
gggatcccag gcgagagtca ccacaccctg tccatgttcc tgcaggtctt gatatgcgag
                                                                     840
gacgctgtgt cttccctgcc acattttctt cttctttctt gagacagacc cttgctccat
                                                                      900
cacccaggcc agagtgtggt ggtgcgaaca cggctcactg cagcctcgac cctcaggctc
                                                                      960
aagcgatcct cacgcctcgg acccccaaag tgctgggatc acaggcgaga gtcacatgc
                                                                   1020
tggcctgaat cttcagggta ttttacggtt gaagtgtcac ttacttaacc atccctgttt
                                                                     1080
caagagtgta ggtggtcacc ctgtctctgc cgctgacctg gcctggaccc tcggctgtga
                                                                     1140
gagggagggg tgggctgggc tggaggaacc tgaagccctc gtgatgtcac aagcccatct
                                                                     1200
ggctgggcat cccctgctgt gtcctgagct gcacatgccc caggtggccc ccacagcaga
                                                                    1260
ggcgagccac tggagggtgg agggcttcca cgggacggtc ttcaggggga gaaggaaggg
                                                                     1320
cccaggcccc caggagactc aggagaccag agcctggggt caggggctca gccaggggct
                                                                     1380
cagccagggc tggatgtccg gagccagccc cgcagccctg tgttctttgttcttcgcact
                                                                   1440
                                                                     1500
cccaccgtcc gtgtgaacag ctccagcccc acctgcgcct ccctgtgctg ggctccatca
                                                                     1560
gggagcccag aagacgtgtg tgcttctgaa attgggtccc tacatgcctt tgtcccagtg
                                                                     1620
caccttgctc cttccattta ctatcgagat ttaaatgcct gttttctccc cagaggttga
cggatatatt cagacgttac gacacggatc aggacggctg gattcaggtg tcgtacgaac
                                                                    1680
agtacctgtc catggtcttc agtatcgtat gaccctggcc tctcgtgaag agcagcacaa
                                                                     1740
                                                                     1800
catggaaaga gccaaaatgt cacagttcct atctgtgagg gaatggagca caggtgcagt
```

1860

tagatgctgt tcttccttta gattttgtca cgtggggacc cag¢gtaca tatgtggata

```
1920
agctgattaa tggttttgca actgtaatag tagctgtatc gttctaatgc agacattgga
                                                                     1980
tttggtgact gtctcattgt gccatgaggt aaatgtaatg tttcaggcat tctgcttgca
                                                                     2040
aaaaaatcta tcatgtgctt ttctagatgt ctctggttct atagtgcaaa tgctttttta
                                                                     2100
gccaatagga attttaaaat aacatggaac ttacacaaaa ggcttttcat gtgccttact
                                                                     2160
tttttaaaaa ggagtttatt gtattcattg gaatatgtga cgtaagcaat aaagggaatg
                                                                     2207
ttagacgtgt aaaaaaaaa aaaaagggcg gccgctctag aggatcc
<210> 90
<211> 3533
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (44)..(44)
<223> n equals a,t,g, or c
<400> 90
                                                                       60
ttttatttac ttcaaattaa ctgtacttta ctcaaataga aaangaataa ttttcacatt
atgaagctac acaattccaa aatacacatg ctgaggctct ttttaagtcc gaattgtcta
                                                                      120
qtaattacaa aaaagtgaag agtttacaga tatacaagga aataaaggcg aattattgca
                                                                      180
                                                                      240
aagaaaacaa gtttaatttc actttgaatg acaacgattt ttctggaaag cagatacttc
                                                                      300
actcctttaa qtttccaccc aaqccacaat aatttcaaac ggtcttgcgg atgacccagc
                                                                     360
tggtcactct tgtttatgtg gggactggag gtaatgagg ccaaaaaaag tgctataaac
ctaatttggc tagagcaagt tcacacgaca cgaccgtgct ttaaaaaactt gctctccatt
                                                                      420
                                                                      480
atgtacttcc ttccatcagg ttggggaaaa aaaaatggtg gggatggtga gtaaacacac
                                                                      540
cagtggtttc atcagagggg aactcactac tcaggaggtg acggtgacgt ggtgccggtc
                                                                      600
cctgaagtac gcgcacaagc tccggaggtt gcgggagctt ccgctgccgc ctggagggaa
gccggagcga cgggggtcac ggcggcggtc agagggtaaa ggtcttgctc ccagcagcct
                                                                      660
                                                                      720
ccgcggtgga tacgtcgcca tcttggatcc gcgggacaag aaaattcatg cgagggagac
gtggtgggcg gtccttcctg tgacacgacc cttgagtgac agttctattt gattgcctcc
                                                                     780
                                                                      840
ggtactgtga ggaaaggaca cgactctatg gtgaggactg atggacatac attatctgag
aaaagaaact accaggtgac aaacagcatg tttggtgctt caagaaagaa gtttgtagag
                                                                      900
ggggtcgaca gtgactacca tgacgaaaac atgtactaca gccagtcttc tatgtttcca
                                                                      600
                                                                     1020
catcggtcag aaaaagatat gctggcatca ccatctacat caggtcagct gtctcagttt
                                                                     1080
qqqqcaaqtt tatacqgqca acaaagtqca ctagqccttc caatqagqgg gatqaqcaac
aatacccctc agttaaatcg cagcttatca caaggcactc agttaccgag ccacgtcacg
                                                                     1140
                                                                    1200
ccaacaacag gggtaccaac aatgtcact cacacgcctc catctccaag caggggtatt
                                                                     1260
ttgcctatga atcctargaa tatgatgaac cactcccagg ttggtcaggg cattggaatt
cctagcagga caaatagcat gagcagttca gggttaggta gccccaacag aagctcgcca
                                                                     1320
agcataatat gtatgccaaa gcagcagcct tctcgacagc cttttactgt gaacagtat
                                                                    1380
                                                                     1440
tctggatttg gaatgaacag gaatcaggca tttggaatga ataactcctt atcaagtaac
                                                                     1500
atttttaatg gaacagacgg aagtgaaaat gtgacaggat tggacctttc agatttccca
gcattagcag accgaaacag gagggaagga agtggtaacc caactccatt aataaacccc
                                                                     1560
ttggctggaa gagctcctta tgtggaatg gtaacaaaac cagcaaatga acaatcccag
                                                                    1620
                                                                     1680
gacttctcaa tacacaatga agattttcca gcattaccag gctccagcta taaagatcca
                                                                     1740
acatcaagta atgatgacag taaatctaat ttgaatacat ctggcaagac aacttcaagt
acagatggac ccaaattccc tggagataaa agttcaacaa cacaaaataa taacagcag
                                                                    1800
aaaaaaggga tccaggtgtt acctgatggt cgggttacta acattcctca agggatggtg
                                                                     1860
                                                                     1920
acggaccaat ttggaatgat tggcctgtta acatttatca gggcagcaga gacagaccca
ggaatggtac atcttgcatt aggaagtgac ttaacaacat taggcctcaa tctgaactct
                                                                     1980
                                                                     2040
cctgaaaatc tctacccaa atttgcgtca ccctgggcat cttcaccttg tcgacctcaa
gacatagact tocatgttcc atctgagtac ttaacgaaca ttcacattag ggataagctg
                                                                     2100
gctgcaataa aacttggccg atatggtgaa gaccttctct tctatctcta ttacatgaat
                                                                     2160
                                                                    2220
ggaggagacg tattacaact tttagctgca gtggagcttt ttaaccgga ttggagatac
                                                                     2280
cacaaagaag aacgagtatg gattaccagg gcaccaggca tggagccaac aatgaaaacc
aatacctatg agaggggaac atattacttc tttgactgtc ttaactggag gaaagtagct
                                                                     2340
```

```
2400
aaggagttcc atctggaata tgacaaatta gaagaacggc ctcacctgcc atccaccttc
                                                                2460
2520
cccttttctt ggggtatggc tgtctcagca caatactcaa cataactgca gaactgatgt
qgctcaggca ccctggtttt aattccttga ggatctggca attggcttac gcaaaaggtc
                                                                 2580
                                                                2640
accatttgag gtcctgcctt actaattatg tgctgcccaa cactaaatt tgtaatttgt
ttttctctaq tttgagcagg gtctgaattt tttcatttat ttcctttttt gccagcagac
                                                                 2700
agacttgagt ctgtaaagac aagcaaatac actgacagaa gtttaccata gtttctaaaa
                                                                 2760
tqtaaaaaaq aaaaccccca aaaqactcaa gaaaattaga ccacaaattt tqcattqttc
                                                                 2820
attgtagcac tattggtaat aaaataacaa atgtttgtgc atttttatgt gaagatcctt
                                                                 2880
ctcgtatttc atttggaaag atgagcaaga ggtctgcttc cttcatttta cttccccttc
                                                                 2940
tqtttttqaa agqcagtttc qccaagctta atgcaagaat atctqactgt ttagaagaaa
                                                                 3000
gatattqcca caatctctgg atggttttcc agggttdgt tattactgag cttcatcttt
                                                                3060
ccagaatgag caaaacactg tccagtcttt gttacgattt tgtaataaat gtgtacattt
                                                                 3120
                                                                 3180
tttttaaatt tttggacatc acatgaataa aggtatgtat gtacgaatgt gtatatatta
tatatatgac atctattttg gaaaatgttt gccctgctgt acctcatttt taggaggtgt
                                                                 3240
                                                                 3300
gcatggatgc aatatatgaa aatgggacat tctggaactg ctggtcaggg gactttgtcg
ccctgtgcac taaaagggcc agattttcag cagccaagga catccatacc caagtgaatg
                                                                 3360
                                                                 3420
tgatgggact taaaagaagt gaactgagac aattcactct ggctgtttga acagcagcgt
ttcataggaa gagaaaaaaa gatcaatctt dattttctg accacataaa ggcttcttct
                                                                3480
3533
<210> 91
<211> 1434
<212> DNA
<213> Homo sapiens
<400> 91
cattaaactc tttttatcgg gaatagtatg atattttcaa tgtcactcca ttcatgttga
                                                                   60
                                                                  120
tttggagctg acagttattt tgtgtaagca gagatttaat tttatattga aagtcagtgc
                                                                  180
aaaattatga ataggatata ctaataaata caaagtaata acaaaagtca aagcagtgtt
ctaaataaaa attctgggtt ccttaaaaat tattttaaat ttatcttgaa atagtttct
                                                                  240
                                                                 300
tagattaatc tcaggatatg agaaagtcaa tbagtgtga gtaaagttag tatcattaaa
caaattgtct attaaatgca mgagtggtaa tatacagaat ttatcaggca ttaccaagtc
                                                                  360
taggcacata taggaaatgc agcactcaga atggtttcaa tgtagtagtt gatgcttgta
                                                                  420
aggtagggga gcttattcag acatagtaga tagtttctct aatgctgtst caattgctgg
                                                                480
cctttggcta cctgtacttc cscattatgg cagcccattc agtcttgagt tttcttctct
                                                                  540
ggacacctta tgctctgaaa tcatgagcga ggctgattca attggtgatt tgggtagaaa
                                                                  600
gcagtatgtt ttgctgacat taagatgtag gttatagata ggtttagcct ttaagtgtat
                                                                  660
gtttttatac tttaaaataa gaaatataac cttttaagct attccacctc ctccccagc
                                                                 720
ctatctcaaa ctggtggaat atatggagag atcttgaaag aagtaaaata aaccttcact
                                                                  780
                                                                  840
gctccactcc aggtgaatcc gcccactccc actgacctag tagaatttgt aatttaatac
                                                                 900
ttaccttcta tttctgaaat cagttgtgaa ctgttgcctt atgttcagar gtttaagac
ctcmgtgaat tcattttta aaatctgcta ttctgagaag cattgaatga attcttaaca
                                                                  960
agaagactca tctgtagctg tttgctgact cctatgagcc ccataagggt tctgtgctta
                                                                 1020
                                                                 1080
gcattaacaa aataaggttt ataggtaaag ccaatgtatt aatttttttt tgcatggagg
gctttaaaat ttgtgctctt ttcatattt tattcatatt caatttatgg tttgtaactg
                                                                1140
ctttttaggg agataattat atgttataaa ttagttttgg ggggaataat tgtgcaaaga
                                                                 1200
                                                                 1260
ggataattta atttacgtgc ttctgttatt cagaataaag agagaagact acgctgcata
                                                                1320
ttcaagagtt gtaccttaac attggtgaaa cattttttct aagattttca aaggaatat
gtgtaaattg agaaatcata accactgtcc taacttggta aacaaactgt tcttaaataa
                                                                 1380
1434
<210> 92
<211> 867
<212> DNA
<213> Homo sapiens
```

```
<400> 92
                                                                     60
ggcacgagca ggtactgggt gadgcctgg ctgaggaaaa gttaactaga cacttgggga
                                                                    120
aaqqaqatcc aagggagtaa gaggcaaaat gcctttgcat gcttttcttc ctatctcttt
                                                                    180
ttctttctct ccttctcact ctctcccttc cttcctttct tcctttctct ttcttttt
                                                                   240
tttctctttt cccccacctc tctgcctgcc tccttccttc cctccctcc cctccttcc
                                                                    300
ccctcctcc ctccctccct tccttccttc cttccttcct tccttccttc cttccctccc
                                                                    360
tectetete etectteeet geettettte ettegttetg ceaacttgee agaaggagee
                                                                    420
caagaaaaag cacccagatg cttcagtcaa cttcttagaa ttcttcttt ttttatgttc
agaaaagatg gaaattcæt tctgctaaag agaaagaaaa aattggaaga cagggtgaag
                                                                    480
gtgaacaggc ccattataag aaagaaacaa aaatctatat tctgtctaca aggaagcgag
                                                                    540
                                                                    600
agagagaaag agagagaaga aagaagttcc aggattctaa tgtaccaaag ggatctcctt
                                                                   660
tttcttgttt tgttctgaaa atttcaccaa aagagcacag gagaacatt tggctaattc
attggcgatg atgtaagaaa actgagagaa atgaaagaaa tgaagaatta ctgctgcaga
                                                                    720
                                                                    780
taatatacag ccttgaggaa agaaaggctt ttaagattat agatataaag gctattgctg
                                                                    840
tattctggga taaaagaaag tctgatgtca gggaaagggg aagttggaaa aactggaaaa
                                                                    867
agaaaaaaga aaaaaaaaa aaaaaaa
<210> 93
<211> 1558
<212> DNA
<213> Homo sapiens
<400> 93
ggttttggag tatatatat gtatgccatg aactatattt ttctgcttat ggctttgcct
                                                                     60
catttaattg ccatagcact tacatggggc aggtattcat tttcctgcttagcaaataag
                                                                   120
gaaactgaat ttcagagatg tcaggtaacc tgcctacttc acacactagg agttttgatg
                                                                    180
                                                                    240
tttaattttg aactaagatc tatctggctt gaaagctctt tgcattaaac aaccttgaac
                                                                    300
aatatacttg gaacgtaggt gtgtttttgg cacagaacat ggcatgtgtg tgagggattg
aacacagact tgccagatt caaacttacc aatcttctgt ttcatgtgcc cagaagaaac
                                                                    360
                                                                    420
agcctgtttc tcagcctcaa acccaaactt ctagttgtct tgattggttc agcctgactg
                                                                    480
tccaactctg atttatagct gtgattgggg gagctgagat tacacagtgt aggcaggcag
                                                                   540
aagggcccca ggcctattga tatgggtgag gacaatactc acgactccc ttcacttact
cactcttcca aggtcttggc ttgaacccaa ttttttttga gagaataaac caggcttttt
                                                                    600
gttctccact tggcctgact ccatttctgg cattccagcc atgtatttag ctgttatcag
                                                                    660
                                                                    720
ctttcagatt tagascaaag ccttgtttcc aataagcttg tttctctgaa gtaattgtta
aaatataatt ttcagaaaaa ggttaaatca tgactcatac aaatataaaa atgaacatgt
                                                                    780
                                                                    840
qctaaaqatt tttatttcac tcatqtgata tgaagtaacc agacagaagt tataaccagt
                                                                    900
acatatggaa agtcaaaaag cacaaattca tatgtagtaa aggaattgga ttgcaaatga
                                                                   960
aggcaaaact gtttttycta cagggtggag ggaagata# caaaatgcta gaaccagaat
                                                                   1020
ttscatgcct gtcacttagc ttcaatttac aaaagcccag aataactcaa aggcaaattc
tagccctgca aatatcagcc ctaaagctgt gctgtggcca gtgcatagtt ttctattgaa
                                                                   1080
gtacaatttt ttccccaaat acattatctc tcagagggag tccaaattgc ttccctttca
                                                                   1140
                                                                   1200
ctcagcagat ctgttcagtc aacagatgtt aaatagctac agcgtatcag gcacaaataa
                                                                   1260
ttctttataa aataaagtaa caaactatat gttgtttcaa agttccagtt aaggccagcc
qtqqtaqctc acccttataa tcccaacact gggaggccga ggcaggcgga tcacttgggc
                                                                   1320
taggagttcc ataccagcat ggccaacatg gtgaaccct gctctactag aatgcaaaga
                                                                   1380
                                                                   1440
ttagccaggt gtggtggcgc atgccggtag tccaggctac tcaggtggct gaggcacagg
                                                                   1500
aatggcttga gcctgggagg cggaggttgc agtgagccga gattgcgwcc gctgcactcc
                                                                   1558
agcctgggca acactgtgag actcctgtct acaaaaaaaa aaaaaaaaa aactcgta
<210> 94
<211> 2199
<212> DNA
<213> Homo sapiens
<400> 94
60
```

```
120
aaatcqqtqa ccaaqaatcq gacttcttat atgcgccaca cctgcatagt gaatatcgct
                                                                    180
qcctcccttc tggtcgccaa cacctggttc attdggtcg ctgccatcca ggacaatcgc
                                                                     240
tacatactct gcaagacagc ctgtgtggct gccaccttct tcatccactt cttctacctc
agcgtcttct tctggatgct gacactgggg cctcatgctg ttctatcgcc tggttttcat
                                                                     300
                                                                     306
tctgcatgaa acaagcaggt ccactcagaa agccattgcc ttctgtcttg gctatggctg
                                                                     420
cccacttgcc atctcggtca tcacgctggg agccacccag ccccgggaag tctatacgag
                                                                     480
gaagaatgtc tgttggctca actgggagga caccaaggcc ctgctggctt tcgccatccc
agcactgatc attgtggtgg tgaacataac catcactatt gtggtcatca ccaagatcct
                                                                     540
gaggccttcc attggagaca agccatgca gcaggagaag agcagcctgt ttcagatcag
                                                                    600
                                                                     660
caagagcatt ggggtcctca caccactctt gggcctcact tggggttttg gtctcaccac
                                                                     720
tgtgttccca gggaccaacc ttgtgttcca tatcatattt gccatcctca atgtcttcca
                                                                   780
gggattattc attttactct ttggatgcct ctgggatctg aaggtacagg aagctttgct
                                                                     840
qaataagttt tcattgtcga gatggtcttc acagcactca aagtcaacat ccctgggttc
                                                                     900
atccacacct gtgttttcta tgagttctcc aatatcaagg agatttaaca atttgtttgg
                                                                     960
taaaacagga acgtataatg tttccacccc agaagcaacc agctcatccc tggaaaactc
                                                                   1020
atccagtgct tcttcgttgc tcæctaaga acaggataat ccaacctacg tgacctcccg
                                                                    1080
gggacagtgg ctgtgctttt aaaaagagat gcttgcaaag caatggggaa cgtgttctcg
                                                                    1140
qqqcaqqttt ccqqqagcag atgccaaaaa gactttttca tagagaagag gctttctttt
gtaaagacag aataaaaata attgttatgt ttctgtttgt tccctccccc tccccttgt
                                                                  1200
gtgataccac atgtgtatag tatttaagtg aaactcaagc cctcaaggcc caacttctct
                                                                    1260
gtctatattg taatatagaa tttcgaagag acattttcac tttttacaca ttgggcacaa
                                                                    1320
                                                                    1380
agataagctt tgattaaagt agtaagtaaa aggctaccta ggaaatactt cagtgaattc
                                                                   1440
taagaaggaa ggaaggaæga aaggaaggaa agaagggagg gaaacaggga gaaagggaaa
                                                                    1500
aagaagaaaa agagaaagat gaaaatagga acaaataaag acaaacaaca ttaagggcca
tattqtaaqa tttccatqtt aatqatctaa tataatcact cagtgcaaca ttgagaattt
                                                                    1560
ttttttaatq qctcaaaaat ggaaactgaa agcaagtcat ggggaatga tactttgggc
                                                                   1620
                                                                    1680
agtatcttcc tcatgtcttc ttagctaaga ggaggaaaaa aaggctgaaa aaatagggag
                                                                    1740
gaaattcctt catcagaacg acttcaagtg gataacaata tttataagaa atgaatggaa
                                                                    1800
ggaaatatga teeteetgag aetaaetttg tatgttaagg tttgaaetaa gtgaatgtat
ctgcagagga agtattacaa agatatgtca ttagatccca agtgctgatt aaatttttat
                                                                    1860
agtttatcag aaaagcctta tattttagtt tgttccacat tttgaaagca aaaaatatat
                                                                    1920
atttgatata cccttcaatt gccaaatttg atatgttgca ctgaagacag accctgtcat
                                                                    1980
atatttaatg gcttcaagca ggtacttctc tgtgcattat agatagatt ttaataatct
                                                                   2040
tatagcattg tatattatta ttgctgttgt cactgttatt attattgtgg atactggccc
                                                                    2100
ttggtgtgtt gcatagctcc ctatgtattc tctgtttcca tctttaagtt cccagaccaa
                                                                    2160
                                                                    2199
tatacattaa qaqttttgaa aaaaaaaaa aaaaaaaaa
<210> 95
<211> 1392
<212> DNA
<213> Homo sapiens
<400> 95
attcggcaga gcagaaaacc agactgcact tgctttataa aacagagctt tatttttcct
                                                                      60
tcataataag cagagttgca gtgttgctgg tattgattca ctggcgtggt ggtatcagga
                                                                     120
                                                                    180
cagatgtctc tatgattaat ttttggcctg tcactcatgt ttgatatgg ctgttgtggc
                                                                     240
tccaagcatt ggaagcaaga ggacagggaa gcaacattga ctgtaccagg aactccaaaa
                                                                     300
cagtetteae atettaatgg ttggacaatg ceaaatggte actetttet ggaagttgae
tggggacaag atagtggtaa ggattagatt tggccagaaa gtttctgcca cagtgagctt
                                                                     360
                                                                     420
tcctgtctaa atccttattt taactgttgt cacttaatat tcacactttg gaaggacatc
tactgttggt tacaattatg aaaccaactt gaatactttt tagttgaaca tttcagtagt
                                                                     480
                                                                     540
ccaaccccca acttttgyta gagagttact ctcttaact ttgctagaaa gtagcaaagt
                                                                    600
                                                                     660
tctctactct acatgttcag ggctggctgt agaatttcgt tttttaagga aacaggaaga
                                                                     720
cagaactaat tatgcaagtc ttcatttagc tttttaaaaa aacagcttta ttgagttaga
                                                                     780
attgacatgc agtaaatggt acatatttaa agcgtacaat ttgttaagtt ttgacataag
tatacattgt gaaaacatca gtcaccacaa tcaggatact tattttaaaa aacaacttta
                                                                     840
```

```
900
tttaggatta gtatactgat aatgtgtcca ttgtaagtgt acattttcag ttttgacaaa
tgtatagatt tttgtaacta ccaccaccag tcaagatgaa aacgtttcta gcactccaga
                                                                 960
aagttccctt gtgtcccttc ttggtcagtt attccacca tgctctcagg caaccacagt
                                                               1020
tctqcttcta tcactatata agtgacagaa tttttctaca gaatttcaca tagatggaat
                                                                1080
catacaatat gtactgttct gtctggcttc ttgaggtaag ccaaatgtct tttaagagtc
                                                                1140
                                                                1020
atgcatgttt ttgcatttat tagtagttta ttcttttttt gttggtgagt agcattcatt
gtatggatat attccagtct gttttattca ttcacttttt ggacatttgg gttgttatca
                                                                1260
attttgggct cttttgaatt aatccctccc tccttccctc cttcccyccc tccctccttc
                                                                1320
1380
                                                               1392
ttttcggcac ga
<210> 96
<211> 717
<212> DNA
<213> Homo sapiens
<400> 96
                                                                  60
ggcacgaget agetgeegee accegaacag cetgteetgg tgeecegget ceetgeeceg
                                                                 120
eqeccaqtea tqaccetqeq ecceteacte etecegetee atetgetget getgetgetg
ctcagtgcgg cggtgtgccg ggctgaggct gggctcgaaa ccgaaagtcc cqtccgqacc
                                                                 180
ctccaagtgg agaccctggt ggagccccca gaaccatgtg ccgagcccgc tgcttttgga
                                                                 240
gacacgcttc acatacacta cacgggaagc ttggtagatg gacgtattat tgacacctcc
                                                                 300
ctgaccagag accetetggt tatagaactt ggccaaaagc aggtgattec aggtetggag
                                                                360
                                                                 420
caqaqtcttc tcgacatgtq tqtgggagag aagcgaaggg caatcattcc ttctcacttg
qcctatggaa aacggggatt tccaccatct gtcccagcgg atgcagtggt gcagtatgac
                                                                 480
                                                               540
gtggagctga ttgcactaat ccgagccaac tactggctaa agctggtgaa gggcattttg
                                                                 600
cctctggtag ggatggccat ggtgccagcc ctcctgggcc tcattgggta tcacctatac
                                                                 660
aqaaaqqcca ataqacccaa aqtctccaaa aagaagctca aggaagagaa acgaaacaag
717
<210> 97
<211> 832
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (827)..(829)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (831)..(831)
<223> n equals a,t,g, or c
<400> 97
                                                                 60
gaattcggca cgagtatgaa actaacaaca tagaatgccc cccaaacaaa ttcctcaac
                                                                 120
tttgttttat cccttacctg atgaaagtga acatttctag tggagaaaga agatcacagt
                                                                 180
                                                                 240
tctctaatat gggcattaag agaggggtac agctagaggg gaggtgaaaa cctgcctcca
ctggggtgaa aaacagtgtg ctgaggtttc agccagtgat tacactgggt aatcaaccag
                                                                 300
tcccatgttt cacaaaggag ttgtaatgat taacagttca ggtatgctty tgaggaaatc
                                                                 360
taattgagac ctttggaaaa tagcattgtt atgaatggtg tggtgttacg ccctggaggg
                                                                 420
                                                                480
gaaaaggcta ggaaaaacat tttaactttt caagtgtatt taaattaaca ¢caaatgtt
                                                                 540
tcagtgtgct ttactggaga ctgcctgagt ttggaattca aatattgtaa ccaaattact
                                                                 600
ccaqqtttct qaactaaaat gatctattga tgtttctcaa agtatagatc acagagtaag
aaaagaggaa atcaagtctg gtttatgaca aacttttttc catgttaaca ttggacccaa
                                                                 660
```

```
agatgttamt aagagctttt tactactgtg agagraccag cgtgatgtga agacaacgaa
                                                                   720
                                                                   780
cattttaaga agtttgacta gtagacattt cgtttaagtc ttttggaggg tcttggttga
                                                                   832
caacccacaa ttttattgtg gctccccagg ctgggagaac gtggaannnc na
<210> 98
<211> 685
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (678)..(679)
<223> n equals a,t,g, or c
<400> 98
actacggctg cgagaagacg acagaagggg ggcggcgacg gaggaggagg atggaggcgg
                                                                    120
tggtgttcgt cttctctcc ctcgattgtt gcgcgctcat cttcctctcg gtctacttca
taattacatt gtctgattta gaatgtgatt acattaatgc tagatcatgt tgctcaaaat
                                                                   180
taaacaagtg ggtaattcca gaattgattg gccataccat tgtcactgta ttactgctca
                                                                   240
                                                                   300
tgtcattgca ctggttcatc ttccttctca acttacctgt tgccacttgg aatatatatc
                                                                  360
gatacattat ggtgccgagt ggtaacatgg gagtgtttga tccamagaa atacacaatc
gagggcagct gaagtcacac atgaaagaag ccatgatcaa gcttggtttc cacttgctct
                                                                   420
gcttcttcat gtatctttat agtatgatct tagctttgat aaatgactga agctggagaa
                                                                    480
                                                                   540
gccgtggttg aagtcagcct acactacagt gcacagttga ggagccagag acttcttaaa
tcatccttag aaccgtgacc atagcagtat atattttcct cttggaacaa aaaactattt
                                                                   600
660
                                                                   685
aaaaaaaaa aaaaaaanna aaaaa
<210> 99
<211> 921
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (4)..(4)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (9)..(9)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (11)..(11)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (15)..(15)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (20)..(20)
<223> n equals a,t,g, or c
```

```
<220>
<221> misc_feature
<222> (901)..(901)
<223> n equals a,t,g, or c
<400> 99
                                                                      60
gcgnggggna naggnaagcn ccccactatt gggttcaaa gctggagctc caccgcggtg
                                                                      120
geggeegete tagaactagt ggateeeeeg ggetgeagga atteggeaeg aggtetgage
agataagatt aagggctggg tctgtgctca attaactcct gtgggcacgg gggctgggaa
                                                                      180
                                                                      240
gagcaaagtc agcggtgcct acagtcagca ccatgctggg cctgccgtgg aagggaggtc
tgtcctgggc gctgctgctg cttctcttag gctcccagat cctgctgatc tatgcctggc
                                                                      300
atttccacga gcaaagggac tgtgatgaac acaatgtcat ggctcgttac ctccctgcca
                                                                      360
                                                                      420
cagtggagtt tgctgtccac acattcaacc aacagagcaa ggactactat gcctacagac
                                                                     480
tggggcacat cttgaattcc tggaaggagc aggtggagtc caagactgta ttctcaatgg
                                                                      540
agctactgct ggggagaact aggtgtggga aatttgaaga cgacattgac aactgccatt
tocaagaaag cacagagetg aacaatactt teacetgett etteaceate ageaceagge
                                                                      600
                                                                    660
cctggatgac tcagttcagc ctcctgaaca agacctgctt ggagggattc cactgagtga
aacceactca caggettgte catgtgetge teccacatte egtggacate ageactaete
                                                                      720
tyctgaggac tcttcagtgg ctgagcagct ttggacttgt ttgttatcct attttgcatg
                                                                      780
                                                                      840
tgtttgagat ctcagatcag tgttttagaa aatccacaca tcttgagcct aatcatgtag
                                                                     900
tgtagatcat taaacatcag cattttæga aaaaaaaaa aaaaaaarct cgagggggg
                                                                      921
nccggtaccc agggcggaag a
<210> 100
<211> 442
<212> DNA
<213> Homo sapiens
<400> 100
ggcacgagat agaacccact gcctcctgat gaagtcccta ctgttcaccc ttgcagtttt
tatgeteetg geceaattgg teteaggtaa ttggtatgtg aaaaagtgte taaacgaegt
                                                                      120
tggaatttgc aagaagaagt gcaaacctga agagatgcat gtaaagaatg gttgggcaat
                                                                      180
                                                                      240
gtgcggcaaa caaagggact gctgtgttcc agctgacaga cgtgctaatt atcctgtttt
                                                                     300
ctgtgtccag acaaagacta caagaattc aacagtaaca gcaacaacag caacaacaac
tttgatgatg actactgctt cgatgtcttc gatggctcct acccccgttt ctcccactgg
                                                                      360
                                                                      420
ttgaacattc cagcctctgt ctcctgctct aggatccccg actcattaaa gcaaagaggc
                                                                     442
ttaaaaaaaa aaaaaaaaa aa
<210> 101
<211> 1886
<212> DNA
<213> Homo sapiens
<400> 101
                                                                       60
ggcacgagcg gcacgaggga aaatagagag caacttaatt atgttaaggt tgactcaaac
                                                                      120
tttttttttc atttcacaga cacttctaga ttggttctta gcagcagctc ttgctcttcc
                                                                     180
taatttgtgt tccccattag catctættt caagagcagg caaatctcat ctgttcccat
ccagcccagc cagggaacct ccagagttgc tttgcagata tggtgtggat cctgcagaat
                                                                      240
gaggatgagc tcttccacga tccacattct tgccctttaa aaaataaagc gggtaggcag
                                                                      300
cggggtggcg gtgtggggtg tgtggggcaa gagctagagc gttcctcctc agtgagttg
                                                                     360
atgaagggag aatgtaaaac ttggctgaac ttagccctcc aggaaagggt agccagaatg
                                                                      420
                                                                      480
ttgtattaat ttagtgatgt cttcaaaagg gtgtggtgga ggaggagtct cattcagaat
                                                                      540
gagaagctga tcccagctcc caggaaatcg acacagttgc tggtgtagtag tggtcagcac
                                                                      600
tagccgagtc cctatttgta gcttcatgct gttttttata ctgttgtgat gtaatgtaca
tctgtgttca cccaagctgc ctatgcaatg acttctataa agctcagttt ttaaacacag
                                                                      660
                                                                      720
tctcttacag ataaaacaac agaaccagtg ccagaaagca gccttccctt acatgggcac
```

```
780
ttctgccaag catatgagtt cattgccttg aagatcaaag tcaaagagaa aggagaggg
                                                                    840
tqttqaaatq atcagcgaaa attaaatgaa aatatattct tattggaagc tgatgctcta
                                                                    900
ttatcaataa aggacccata gcaaagatac atagaggagt gatttttcaa gcagtcaaga
                                                                    960
gcagaactac gaaggttttg agatggtgta gctgccaaag aagtcacccc tggctgtccc
                                                                   1020
ccatctcagt gagcctgagt tgaatgtttc ccaatgtcat atcccacagg gggatactta
gtgcccacag catgtgatcg gtagctgata aggaagcatt ggaccagaat gtcatggaag
                                                                   1080
aaacaaaagc ccacttatct tccgcggcaa tatgtttatg aacatgtgaa tcattgttca
                                                                   1140
tataactgtc tcaaatactt ggctgaaaag tagactgttt ggtgtaagt ttcgacttat
                                                                  1200
tttcgaggga ggatgggata tggttataca ccatatgaag gattttgtga ataaagagtt
                                                                   1260
                                                                   1320
tcaaaatatt ttgggaatag tagttcggca tttattttt ttcccagtca catttcatga
                                                                   1380
gcaacaattt tatgtttaag gtagtatctg actaacctac tgatgctgtc tattcattcc
                                                                   1440
attagcatac ttatgccatg ggtaaaagca atccatctag aactctttca accatttttt
agtttgtctt tgcacactct agatagcatt tctgaaatca tctgcaggaa cagagttcct
                                                                   1500
                                                                   1560
gaaaagagca atggtctaga gcaggctttc tcagacttca gtgtgcacca gagtcaccca
                                                                  1620
ggatcttgtt aaaatgctga ttctgaggcc aggcgcggtggctcacgcct gtaatcccag
                                                                   1680
cactttagga ggctgaggcg ggcggatcac ggggtcagga gagcgagacc atcctggcta
acagcatgag accctgtctc tactaaaaat acgaaaaatt agccaggcat ggtggcaggc
                                                                   1740
                                                                   1800
acctgtagtc ccagctactc aggaggctga ggcaggagaa tggtgtgaac ctgggaggtg
                                                                   1860
gagcttgcag tgagccgaga tcgcgccact gcactccagc ctgggggaca gagcgagact
                                                                   1886
ccacctccaa aaaaaaaaa aaaaaa
<210> 102
<211> 1336
<212> DNA
<213> Homo sapiens
<400> 102
                                                                     60
ccacqcqtcc qqaqttccac aaaatttqtt aqtcatcaaataataqaqtt tttcttaagt
                                                                    120
180
tcatgctaat atccgtggac agtaatgtgc ctgttgtgtt ccttttgctt ttcatccttg
                                                                    240
tgatcttatg tcacatggaa tgtaaaggcc acatatatat atgtgtgtgt gtgtgtgt
                                                                    300
atatgtatat ttttaagaat atttagtctg gatttcatga aattgacttc tgaaataatt
tgcctcaatt ttgtttcctg gtggtttgag aagaaagttc ctgtggtgaa atgaaaaggg
                                                                     360
qataaaqqga agtacttatt ttaaaacata agtaacttgt ggattgttga atactggaaa
                                                                     420
aagagtgtta cttccccqtt aacctacqcc tcgtgtaatc cttcaggttg gaagtcggat
                                                                    480
                                                                    540
cqcaqaccqt qtatatgaca tacccagaaa tttccccctt gctttggatc ttggttgtgg
aagaggttac attgcacaat atttgaataa gcttcagtta ttccattgca ggaaactatt
                                                                     600
ggaaagtttt tccaagctga cattgcagaa aatgctttgt ttgcattggg tgaatgacct
                                                                     606
                                                                    720
tcctagagca cttgagcaga ttcattatat tttaaaacca gatggagtgt ttatcggtgc
aatgtttgga ggcgacacac tctatgaact tcggtgttcc ttacagttag cggaaacgga
                                                                    780
aagggaagga ggattttctc cacacatttc tcctttcact gctgtcaatg acctgggaca
                                                                    840
tctgcttggg agagctggct ttaatactd gactgtggac actgatgaaa ttcaagttaa
                                                                    900
                                                                     960
ctatcctgga atgtttgaat tgatggaaga tttacaagaa caaaagtcca gaatgttgac
ctaattttac aaaacaagct gcatatcagc tgatgaatgc atgagaaatt ttcaaggctt
                                                                   1020
tcacagtggt cttaaggtat gggtgagagt aactgtgctt ggaatagaaa agccctgctq 1080
catcgagaca caatgctggc agctgcggca gtgtacagag aaatgtacag aaatgaagat
                                                                   1140
                                                                   1200
ggttcagtac ctgctacata ccagatctat tacatgatag gatggaaata tcatgagtca
                                                                   1260
caggcaagac cagctgaaag aggttccgca actgtgtcat ttggagagct aggaaaaata
aacaacctta tgccaccggg gaæaaatca caataaatat ttattcagtg ttaaaaaaaa
                                                                   1320
                                                                   1336
aaaaaaaaa aaaaaa
<210> 103
<211> 1129
<212> DNA
<213> Homo sapiens
```

<400> 103

```
60
gctgcttccc aaggaccatg aaactcctgc tgctggctct tcctatgctt gtgctccta
                                                                      120
cccaagtgat cccagcctat agtggtgaaa aaaaatgctg gaacagatca gggcactgca
                                                                      180
ggaaacaatg caaagatgga gaagcagtga aagatacatg caaaaatctt cgagcttgct
                                                                      240
gcattccatc caatgaagac cacaggcgag ttcctgcgac atctccaca cccttgagtg
                                                                     300
actcaacacc aggaattatt gægatattt taacagtaag gttcacgaca gactactttg
                                                                      360
aagtaagcag caagaaagat atggttgaag agtctgaggc gggaagggga actgagacct
ctcttccaaa tgttcaccat agctcatgac ttcctctcgg ctatcactca cccctgtcct
                                                                      420
cagaqtgata aactaagtca catacagata aagcactgaa aacaccacag tgacctccc
                                                                     480
acccccacc aatatgtaat tctattaata gaaacagctg tgtaaagaag tctaaaattt
                                                                      540
                                                                      600
tcactatttc caatgataaa ctcttcagtg ctcttcttga aatgtcacat tatttcccaa
                                                                      660
caagttatac ctatttttag tattcttgtt gctagtgcca tgcacaactt caatagctag
ttgctattcc aacaacætt tcttcatgta tcgttctgtc ttctcaacag ctgtctttca
                                                                     720
tggcagcata agtggtcatg atcaaaattc taaatcttgc atctgtgaga gtagctacta
                                                                      780
tgacactaaa agctttttt ctagaacagg agacacttca ggtgaagcat tcattctcct
                                                                      840
                                                                     900
actaactatg gccttggagc caggttttat ctctcactgt aggaaat@g ccgccccagg
                                                                      960
tgtgagctat gaagactcct ttttgcccca gtggctttgg ggttgaaatg ctgtcgaaaa
                                                                     1020
gcttttatgg ctctgtagac ccatcttttt gaccaagcct tgatcacaca tggacatcca
                                                                     1080
agggtaatca tggaccccca attgtgggtg aaaggatgga tcatttatct acctgattac
tgagagcttt atttgtctcc ctctgatagc aaaaaaaaa aaaaaaaaa
                                                                    1129
<210> 104
<211> 799
<212> DNA
<213> Homo sapiens
<400> 104
qqaqacqqtq qqtqaccaga qaqtcctqtc tatcctagga ggagaacatt cagcccaaat
                                                                       60
cccagcccca tcatgcacag atcagagcca tttctgaaaa tgtcgctgt gattctgctt
                                                                     120
                                                                      180
ttcctgggat tggcagaagc ctgtactcct cgtgaagtca acttgctgaa agggatcata
                                                                      240
ggtctcatga gcagactgtc accggatgag atcctaggct tgctgagcct ccaagtactg
                                                                      300
catgaagaaa caagtggctg caaggaggaa gttaaaccct tctcaggcac caccccatcc
                                                                      360
aggaaaccac tececaagag gaagaacaeg tggaacttee tgaaatgege etacatggtg
atgacctacc tcttcgtatc ctacaacaaa ggggactggt tcactttttc ctcccaagtg
                                                                      420
ttactgccac tactgtaact tggaactgga catcagggat gatccctgct gttctttcta
                                                                      480
                                                                     540
gtgagectge tecateteag ettageette acaaggeete caeteecag geattetaae
ctctgaagaa agctctctgt cccctggact gcctgtgtgg agggtaatga actgggtcct
                                                                      600
ttaaggaatg gcacctgggt gcccagaggc atggccagaa ggtgtctgtg ggggccatgc
                                                                      660
                                                                      720
cttaggggga tgcacccagg gcggctgaga gagcaactgc aggagtttcc cctaaaatct
ctcctccaga tcgttctcga actttcccca ctacttccat aataaaatgt atacttgttg
                                                                      780
aaaaaaaaa aaaaaaaaa
                                                                      799
<210> 105
<211> 1345
<212> DNA
<213> Homo sapiens
<400> 105
totacctott gtoctocco caacaccacc accacctgg &cccetccc toatgaccgc
                                                                      60
                                                                      120
ctggatcctc ctgcctgtca gcctgtcagc gttctccatc actggcatat ggactgtgta
                                                                      180
tgccatggct gtgatgaacc accatgtatg ccctgtggag aactggtcct acaacgagtc
                                                                      240
ctgccctcct gaccctgctg agcaaggggg tcccaagacc tgctgcaccc tggacgatgt
ccccctcatc agtggccctg atctgcctcc tgcgctacgg gcagctcctg gagcagagtc
                                                                      300
                                                                      360
ggcactcttg ggttaacacc acggcactca tcacaggctg caccaacgct gcgggcctct
                                                                      420
tggtggttgg caactttcag gtggatcatg ccaggtctct gcactacgtt ggagctggcg
tggccttccc tgcggggctg ctctttgttt gcctgactg tgctctctcc taccaagggg
                                                                     480
ccaccgccc gctggacctg gctgtggcct atctgcgaag tgtgctggct gtcatcgcct
                                                                      540
                                                                      600
ttatcaccct ggtcctcagt ggagtcttct ttgtccatga gagttctcag ctgcaacatg
```

```
660
gggcagccct gtgtgagtgg gtgtgtgtca tcgatatcct cattttctat ggcaccttca
gctacgagtt tggggcagtc tcctcagaca cactggtggc tgcactgcag cctacccctg
                                                                      720
                                                                      780
gccgggcctg caagtcctcc gggagcagca gcacctccac ccacctcaac tgtgcccccg
                                                                      840
agagcatcgc tatgatctaa ggtctgggga gggtggctgg cccggcctcc acagcacccc
accccatate ttettteeat ttattttgtaccaaaaacaa ttttgagaaa gtattetgtt
                                                                     900
gggatctggg cttcctcact tctggagaag tggccatccc atgcccacct gtgccatgga
                                                                      960
ggagtgggcc ctgccagctg ccacagctgc atgacctgct tccccacccc acggtgtcgt
                                                                     1020
tttgttttta aaggtcacct gtcctcactc acccagccag cccttcaggt gccttctact 1080
cccagtgcca aagccagacc actggggttt cctgctgcag gaattggggg ctgggaacag
                                                                     1140
cagaggggat agaagtctgg tggaggtgga gtgggcacgc cttagctacg gaaaggccca
                                                                     1200
                                                                     1260
tttctgggcc cactgagctg cactgggatt cttcactctg cccctcactt cctttagggc
aaataacaca gcagaaccac gtggtattt tagtactttt ttttatatta aaagaattct
                                                                     1320
aatttgcaaa aaaaaaaaaa aaaaa
                                                                     1345
<210> 106
<211> 1347
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (83)..(83)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (334)..(334)
<223> n equals a,t,g, or c
<400> 106
                                                                       60
gggcagccct caggccctcc ggcagcctgg ccgggcccga gtggccatgg cagcactggt
gtggctgctg gcgggagcac atngtcaagc ctcaacaagt ggatcttcac agtgcacggc
                                                                      120
tttgggcggc ccctgctgct gtcggccctg cacatgctgg tggcagccct ggcatgccac
                                                                      180
                                                                      240
eggggggcae ggegeeecat geeaggegge actegetgee gagteetaet geteagtete
                                                                      300
acctttggca cgtccatggc ctgcggcaac gtgggcctaa ggctgtgccc ctggacctgg
cacaactggt tactaccacc acacctctgt tcancctggc cctgtcggcg tgctgctgg
                                                                     360
                                                                      420
gccgccgcca ccaccactt cagttggccg ccatgggtcc gctctgcctg ggggccgcct
gcagcctggc tggagagttc cggacacccc ctaccggctg tggcttcctg ctcgcagcca
                                                                      480
cctgcctccg cggactcaag tcggttcagc aaagtgccct gctgcaggag gagaggctgg
                                                                      540
                                                                      600
acgcggtgac cctgcttac gccacctcgc tgcccagctt ctgcctgctg gcgggtgcag
                                                                      660
ccctggtgct ggaggctggc gttgccccac cgcccactgc tggcgactct cgcctctggg
cctgcatcct gctcagctgc ctcctgtctg ttctctataa cctggccagc ttctccctgc
                                                                      720
                                                                     780
tggccctcac ctctgccctc accgtccacg tcctgggcaa cctcacgtg gtgggcaacc
                                                                      840
teatectgte eeggetgttg tttggeagee geeteagtge eeteagetae gtgggeateg
cactcactct ttcaggaatg ttcctttacc acaactgcga rttcgtggcc tcctgggctg
                                                                      900
                                                                      960
cccgtcgggg gctgtggcgg agggaccagc ccagcaaggg tctttgagac ctgggggatc
                                                                     1020
tcaggagcca cctgggatgg ccctggcctg aatccagcct ccgctgtggc catagaagga
                                                                     1080
atggagaaca gggctgggca tggtsgctca cgcctataat cccagcactt ccagagtccg
aggtgggtgg atcacctgag gccaggagtt cgagaccagc ctggctagca tggcaaaacc
                                                                     1140
                                                                    1200
tcatctctac taaaaataga aaaattagct gggcatggtggcgcgtgcct atagtcccag
ctacatggga ggctgaggtg ggaggatcac ttgagccctg gagatcgagg ctgcagtaag
                                                                     1260
                                                                     1320
ccaagatcgc atgctactgc actccagcct gggagacaga gcgagacgct gtctcaatta
                                                                     1347
aaaaaaaaa aaaaaaccgg cacgtag
<210> 107
<211> 642
<212> DNA
```

```
<213> Homo sapiens
<220>
<221> misc feature
<222> (41)..(41)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (49)..(49)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (64)..(64)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (607)..(607)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (621)..(621)
<223> n equals a,t,g, or c
<400> 107
                                                                 60
taaaggggaa acaaaaaggc tgggaaggct tccaaccgcg ntttgcggnc cggcttctag
                                                                 120
gaantagtgg aatcccccgg gctggcagga attcggcacg agaaaatgac ttcagacaaa
                                                                 180
tatgatcaat ctctacagtc ccctgatgaa tttcacaggt tcccaccacc atcagttcta
                                                                 240
cctattcatc tcatccatgc tcattgttct gcctctttcc tgttcctatg gatgccctgg
catgtttgtt tctttctttc tggcctcta tttccctccc ctcagacatc acttcagcat
                                                                 300
ctgtgccttc tcacttccct tatcctgggt gttaccattt cagcctatga gcatgccatt
                                                                 360
                                                                  420
aatttqccat ctttacaaaa ttctctcttq acttcacatc cctctqtagc tgccctctcc
cttctctct cttctttaca acaaaactcc ttaaaagaac tgttggctgg gcacagtggt
                                                                480
                                                                  540
tcactcctat aatcccagca ctttcagaag ccaaggtggg aacatcactt gaggccaaga
                                                                  600
actcganggg ggggccggta nccaattggc ctaaagtgag tc
                                                                  642
<210> 108
<211> 669
<212> DNA
<213> Homo sapiens
<400> 108
                                                                  60
120
ttaatcacct tgaagatccc ttaagaggca tttgactggt gctgccgtct gtgtcctcaa
agcaatgctg gtggcatcgt cctgtgtaca catgcagagc taatacccaa actaaaaat
                                                                  240
gggtaactgg ccctqaagtg cttcccaatc agtaagccac agggaaatgt ttgattttta
tgttctgttg gattttggtt tgcttggcat atctaaaggt gcctttactt ttctttttt
                                                                  300
                                                                 360
ttttttttct ttctgctttg ttttgtagga cttgttctaa catggaaaac aagtccagaa
gactetecte tgactgttae cttgeecea agecacecea aacttttatg etcatgtttt
                                                                 420
                                                                  480
attaaagcag gtgctccctg gaatctctgg gacatttttg aggcatttga agcagaatat
                                                                  540
agagtggtct catctccttc cttaatcttc ctggtggttg ggatgttcca cttgtatcat
agatttttt attacagata tgctccactg tttttaaatg tgaacttgtg cgaaatgtg
                                                                 600
cagattcaat gttcttgtta cagattgaat aaatttttat tttgaarawr aaaaaaaaa
                                                                 660
```

```
669
aaactcgag
<210> 109
<211> 1271
<212> DNA
<213> Homo sapiens
<400> 109
                                                                       60
ggggctgggc cctgctcagg tggctctctc cttgcaggga ccggcgatgc tctgcaggct
gtgctggctg gtctcgtaca gcttggctgt gctgttgctc ggctgcctgc tcttcctgag
                                                                      120
                                                                      180
gaaggcggcc aagcccgcag agaccccacg gcccaccagc ctttctgggg ctcccccaac
accocqtcac agccqgtgtc cacccaacca cacagtgtct agcgcctctc $tccctgcc
                                                                     240
tagccqtcac cgtctcttct tgacctatcg tcactgccga aatttctcta tcttgctgga
                                                                      300
gccttcaggc tgttccaagg ataccttctt gctcctggcc atcaagtcac agcctggtca
                                                                      360
                                                                      420
cgtggagcga cgtgcggcta tccgcagcac gtggggcagg tggggggatg ggctagggcc
                                                                      480
ggcactgaag ctggtgttcc tcctaggggt ggcaggatcc gctcccccag cccagctgct
                                                                      540
ggcctatgag agtagggagt ttgatgacat cctccagtgg gacttcactg aggacttctt
                                                                      600
caacctgacg ctcaaggagc tgcacctgca gcgctgggtg gtggctgcct gcccccaggc
ccatttcatg ctaaagggag atgacgatgt ctttgtccac gtcccmacg tgttagagtt
                                                                     660
cctggatggc tgggacccag cccaggacct cctggtggga gatgtcatcc gccaagccct
                                                                      720
                                                                      780
gcccaacagg aacactaagg tcaaatactt catcccaccc tcaatgtaca gggccaccca
                                                                      840
ctacccaccc tatgctggtg ggggaggata tgtcatgtcc agagccacag tgcggcgct
                                                                      900
ccaggctatc atggaagatg ctgaactctt ccccattgat gatgtctttg tgggtatgtg
cctgaggagg ctggggctga gccctatgca ccatgctggc ttcaagacat ttggaatccg
                                                                      960
                                                                     1020
gcggcccttg gacccttag acccctgcct gtataggggg ctcctgctgg ttcaccgcct
cagccccctc gagatgtgga ccatgtgggc actggtgacagatgaggggc tcaagtgtgc
                                                                    1080
agctggccc ataccccagc gctgaagggt gggttgggca acagcctgag agtggactca
                                                                     1140
                                                                     1200
gtgttgattc tctatcgtga tgcgaaattg atgcctgctg ctctacagaa aatgccaact
                                                                     1260
tggtttttta actcctctca ccctgttagc tctgattaaa aacactgcaa cccaaaaaaa
                                                                     1271
aaaaaaaaa a
<210> 110
<211> 802
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (105)..(105)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (730)..(730)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (755)..(755)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (757)..(757)
<223> n equals a,t,g, or c
```

<220>

```
<221> misc_feature
<222> (777)..(777)
<223> n equals a,t,g, or c
<400> 110
                                                                       60
cgtgcctgta gtaagctcat ccctgccttt gagatggtga tgcgtgccaa ggacaatgtt
taccacctgg actgctttgc atgtcagctt tgtaatcaga gattntgtgt tggagacaaa
                                                                      120
tttttcctaa agaataacwt gaycctttgc caracggact acgaggaagg tttaatgaaa
                                                                      180
gaaggttatg caccccmggt tcgctgatct atcaacatca ccccattaag aatacaaagc
                                                                      240
                                                                      300
actacattct tttatctttt ttgctccaca tgtacataag aattgacaca ggaacctact
qaataqcqta qatataqqaa qqcaqqatqq ttatatqqaa taaaaqqcqq actqcatctq
                                                                      360
tatgtagtga aattgcccca gttcagagtt gaatgtttat tattaaagaa aaagtaatg
                                                                     420
                                                                      480
tacatatggc tggatttttt tgcttgctat tcgtttttgt gtcacttggc atgagatgtt
                                                                      540
tattttggac tattgtatat aatgtattgt aatatttgaa gcacaaatgt aatacagttt
                                                                      600
tattgtgtta ccatttgtgt tccatttgct yctttgtatt gttgcattta gtacaatcag
                                                                      660
tgtttaaact tactgtatat ttatgctttc tgtatttacc agctatttta aatgagctgt
aactttctag taaagaattg aaaagcaaat cctcactaaa ggatacacag gataggataa
                                                                      720
                                                                      780
agccaagtcn catcaacatt aaaaaatact aaaananaaa acacaaaaaa aaaaaanccc
gggggggcc cggaacccat tc
                                                                     802
<210> 111
<211> 470
<212> DNA
<213> Homo sapiens
<400> 111
ggcacgaggg aaatcttgca cataggcagg taaataatta taaatggtga agtggattat
                                                                       60
                                                                      120
tctgagctgc ttaattttaa agggaaagag aactttaaac tcttcaacct tttatgctgc
                                                                      180
taataagagt tccacaatca atagaaatct atcttggcag gcacttcctt ttacccacta
                                                                      240
gaattttttc ccttgggagt tcacgatccc cagaaactgt gatatgagcc attcaatatt
gatgtactaa aacagtgctc tgcttaaata cagtttttca acatacagtc ttggaagaaa
                                                                      300
                                                                     360
caaaatccaa aataaattcc aatagtccag taacaggaat aaagacact attgcaaatt
aaatcttaca gacttatatg aaagctgttg ttaacagctg ggtactagtt atttgaaaag
                                                                      420
tttctcgtgc cgaattcgat atcaagctta tcgataccgt cgacctcgta
                                                                      470
<210> 112
<211> 1020
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (3)..(3)
<223> n equals a,t,g, or c
<400> 112
cgncacgagg tgaagttcaa cccaatgcaa ctttccttca gtctttccgt gaaagcgcct
                                                                       60
gtgaaaaatq aqqtcatatt teeetttete agtetgeece tteeegtttt geteteeggt
                                                                      120
                                                                     180
tttcttcttt gtcttcacag atgtttacct atgtttttc tttgttttg ctgttggaag
                                                                      240
acatctaagt gatccttttc ccattctctt tttcactcat aaatgtcctg atgtttagca
                                                                      300
aaaggcagtt ctctttgcta cttgagcttg taaactgttg ttaaatgagt aaccaaaagg
aaagtccttg cgaagttggt taccatttca gatacaagaa ccgtttatct tcccacgctq
                                                                      360
acgaattttg cgagtgagat gattattttt ccttgtgttt gtaatttatt taagtaaatt
                                                                      420
ccttqtttqt ttttcttttc aqtacaccaq qqqtatatat tttcaatatg acatqtacct
                                                                      480
ttggttcagg gctaagttag agtctgaaaa atgaagcctg taggattcat ggcagtgatc
                                                                      540
                                                                     600
taattgtgat tcatcttact gattgtaggg caagaagagt gactaactc aagacacaag
                                                                      660
gcaccttcag cgaggacagc aaagggcgtc tacagagacc agccatatgg cagatactga
```

```
720
ttgtactgtc tgatgttgtg aaatagccaa tctccaccag tcctgtatac tgttcaaagt
aatttttttc tatgaacaat ccctttttaa ataaatcaaa atgcttaaaa tctgaatgga
                                                                    780
                                                                    840
tggaacttaa aactactttg ttgaaacatc aacctgggca gaaaaaaaaa aaaaaaagac
                                                                    900
atgtaaaatt ttgttatttc cagtctgtat atgaaaaaat aggtcatcaa aaggaaaaaa
aataactttg attaactagt gttaaacaaa aaataggttt actaaatctc gtgccgaatt
                                                                    960
cqatatcaaq cttatcqata ccqtcqacct cqtaqqqqq qcccqtaccc aatcqcctqt
                                                                  1020
<210> 113
<211> 1881
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (70)..(70)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (126)..(126)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1860)..(1860)
<223> n equals a,t,g, or c
<400> 113
                                                                     60
atttttcctt ttccttaaca atacctttgg ccattttttt ccagttcact atgtttgtat
                                                                    120
actaactttn cttcagcctt ttaatgcgaa gcaactagta gagcatgctt tcaggatctg
acagenetge tagtagageg aagtattat taatacagaa ttaacettmg eeeetttaaa
                                                                    180
                                                                    240
gtcaagtctg tctaatctaa ctagcgcctc gctttgcctt ctcacaatgc tcactagcca
tcatgctcac ccttctctc cagatccact tcctcatgat actgtcttct aactgggctt
                                                                    300
360
                                                                    420
aactgcaaga tatccagtct cggtcaaaag aacaactcaa ttcttacaca taaatgtttg
ccagagtgtt tcggccgacg tatttacagc tctgacaaat catcagacag ctgctctgca
                                                                    480
gtacagatgt gtatcccacc aaactaatgt agatgtacaa acacttcact gtctgtctca
                                                                    540
agctgctggg atgtatctct ægaaaacct tccagtgggt aaatcttttt ctttagaaca
                                                                    600
aatattggag gtttcatgtt agccatttta aaaggcaaca ctttgacaaa atgatcgttc
                                                                    660
                                                                    720
atactttggg aatttgtggc atgttcacat ttattgctag ggcaattcta ccaagacact
                                                                   780
caatggaata tgtcacactc cttaataggg acctgtgact ccttaataag gactgtgac
atgcccagca tcaagggata agaccgtaaa ttcacatata tgccatctgt cctcaagtgt
                                                                    840
                                                                    900
tatctacata ggaaataaaa tggaattgat gtaaagttcc atttctgaca gctgacattt
                                                                    960
attaaacttt ggatcaaaga taatgtgatt cttatgattg atttctcaaa ctagcttttc
cctcccaagt ccaggæcca ttaatttcct gagccaatca gaaatatatt tttcaataat
                                                                   1020
                                                                   1080
gctaaaatta gctacaattc tgctgaccct actattaaag aatctggatg ctggactcac
tgacaagctt tccagaagca attttataac agatttcatt ttaacaaaat actgatccaa
                                                                   1140
ttttcattat tcttgagaaa tgtcagcttt gccttaatga gtatttgtt taaatttcta
                                                                  1200
agaatttata tcataactag agacccaaat atctttcaca gaattttgtt ccataaatgt
                                                                   1260
ttttcttaat tattaagaag tgttacctta ttaaaatgac caccattcta aaccattttt
                                                                   1320
cagtggtctg gatacgaagt ttacagtttc ataccaacta tctaaaacct aattgcaaat
                                                                   1380
tgaccacaga cctctaacct cctactttta tagacttgaa tacttaagta atttaaatta
                                                                   1440
gggttggtat ttcattttt tcttatctaa atcttagttt cctggaataa taaagtttga
                                                                   1500
tgttcagcaa gagaactgct tgagtttaag ccattttcaa aagaaacttg ccttttacat
                                                                   1560
tattgtgttc cagaacatta agtgactgta ggtactgggt #tagtgatg gtaaactttg
                                                                  1620
tgttgctctt tatgaaatga tccatataac tgttgggtgc atcagtgctt ttcaaagggg
                                                                   1680
ctgcttacta tagggttaac tatgtatatt cattgttaag agttaacttg tggtttggct
                                                                   1740
```

```
1800
gttycctgga ttttataaca tacatgtgca gaaatgtatt caaatgaaag gaagcatacc
                                                                1860
1881
ctgcggccga caagggaatt c
<210> 114
<211> 541
<212> DNA
<213> Homo sapiens
<400> 114
                                                                  60
tgcaggtaac cgttccggaa ttcccgggtt cgacccaagg \mathbf{g}tcccgtga tgccttgtca
tggtcttctt gcacagggcc tcagcctggc acctctgcca ccgtgggctc tctgttgtgt
                                                                 120
gggggtgtcc cgtgcattgc aggacatcca gcagcatccc cggcctcctg ctccgtgcca
                                                                 180
qtaqcqccqc accccqccqt cgtgacagcc caggtctccc ggtgtgcaga atgcccgctg
                                                                 240
                                                                 300
gtcatgctga gaggtacagg ggtgctgccc ccagggttttg aacgctgtct aactcccacc
                                                                 360
tctggtgtgt ctctcccctg tgtgtagcgt ggagtcactg gatgagtgtg gtgacctccc
                                                                 420
tgtgtccagc tgccctgggc tgcaagcagg tccctcctgc agccctccag gccaccctta
                                                                 480
agcagagetg gaccageetg gecaacatgg tgaaaceca tetetaetaa aaatacaaaa
540
                                                                 541
<210> 115
<211> 762
<212> DNA
<213> Homo sapiens
<400> 115
                                                                  60
ggcacgagtg cctctacgtc atgtcttctc caatgtcatg attcacgtcg tgcagtactg
                                                                 120
ttttggactt gtctattatg tccttgttgg cctaactgtg ctgagccaag tgccaatgga
                                                                 180
tggcaggaat gcctacataa cagggaaaaa tctattgatg caagcacggt ggttccatat
tcttgggatg atgatgttca tctggtcatc tgccc&cag tataagtgcc catgttattc
                                                                 240
                                                                 300
gcggcaatct caggaaaaat aaagcaggag tggtcattca ctgtaaccac aggatcccat
ttggagactg gtttgaatat gtttcttccc ctaactactt agcagagctg atgatctacg
                                                                 360
tttccatggc cgtcaccttt gggttccaca acttaacttg gtggctagtg gtgacaaatg
                                                                 420
tcttctttaa tcaggccctg tctgcctttc tcagccacca attctacaaa agcaaatttg
                                                                 480
totottacco gaagcatagg aaagctttcc taccattttt gttttaagtt aacctcagtc
                                                                 540
                                                                 600
atgaagaatg caaaccaggt gatggtttca atgcctaagg acagtgaagt ctggagccca
                                                                 660
aagtacagtt tcagcaaagc tgtttgaaactctccattcc atttctatac cccacaagtt
ttcactgaat gagcatggca gtgccactca agaaaatgaa tctccaaagt atcttcaaag
                                                                 720
762
<210> 116
<211> 1103
<212> DNA
<213> Homo sapiens
<400> 116
                                                                  60
gtettaatga geaacageaa cageagtete cagttaagaa agagagaatt aaatacagea
                                                                 120
gagatttcct gttgaagctc tcaagtgttt ccatctgcag aaaaaaacca gactttctgc
ctgatcatcc cattgtactg caaaaaccag aaaacaacca aagttttaag taqcatttta
                                                                 180
                                                                 240
agaacagatg aatttaagtt tqqacatctq caaatqagqt qqatctagca acaataactg
taatggactg tgacaattca atttattctt aattttgatg gttggctatt tgacttctct
                                                                 300
                                                                 360
aaaaatgaga aagagctatt ttaaaatata aagaattttc taatcagttt cagctttgca
ggaggtttcc tgcataaatt gggaagtaac actggaaagt aggaatttgg ttagtgaagt
                                                                420
                                                                 480
gggaagactg tatatttata atttgcatac tacttgcaat tttttgtttt tcatcacttg
taataatgga atggaaatgt aagctgtaaa gactctcaaa tataaaatat ttgctacagt
                                                                 540
                                                                 600
gtatatatgg tacataattg cttgttgctt ttaaagttcc ttctgttgtt ctgcttccca
```

```
660
ctgatttcat accagctcat gaatggatca ttacagtctc tccagaggct tagaatgatt
                                                                      720
cagaatgttc aatgcatagt tctcaataaa caggaggcag aatttttaat gggtatttct
                                                                      780
tttcagatat atgattggtc tctaggtttt tgataataat atggtcttaa attcataatt
                                                                     840
actagcagag attgataatt tggaaacaat ggtagtgaat gaaactgaag ttgamaacg
                                                                      900
gctgctactt atgtcactaa tcagaccata tgaatagcag aagttgagca atttcaaagt
                                                                      960
aaaactgata tttttatttc caaaggaatt tagacatttg aaaataattg acatacatta
agttttaatt cgataatttc ttatatatgg atgaacaatt tttgggttta agcttttaat
                                                                     1020
tcctagaaat tttatacatt aaatctcctg caatttgtca ctctggatgt tactgtttaa
                                                                     1080
                                                                     1103
aaaaaaaaa aaaaaactcg tag
<210> 117
<211> 1175
<212> DNA
<213> Homo sapiens
<400> 117
                                                                      60
ggcacgagat tgaatgttcc agataatccc tttcccagtc ctgcctgaca tctggtagg
                                                                      120
gggtttgtcc ctggaattct gggacactgg ctggggtttg aggagagaag ccagtaccta
cctggctgca ggatgaagct ggccagtggc ttcttggttt tgtggctcag ccttgggggt
                                                                      180
qqcctqqctc aqaqcqacac qaqccctqac acqqaqqaqt cctattcaqa ctqqqqcctt
                                                                      240
cggcacctcc ggggaagct tgaatccgtc aatagctact tcgattcttt tctggagctg
                                                                      300
                                                                      360
ctgggaggga agaatggagt ctgtcagtac aggtgccgat atggaaaggc accaatgccc
                                                                      420
agacctggct acaagcccca agagcccaat ggctgcggct cctatttcct gggtctcaag
gtaccagaaa gtatggactt gggcattcca gcaatgacaa agtgctgca ccagctggat
                                                                     480
                                                                      540
gtctgttatg acacttgcgg tgccaacaaa tatcgctgtg atgcaaaatt ccgatggtgt
ctccactcqa tctqctctqa ccttaaqcqq aqtctqqqct ttqtctccaa aqtggaaqcc
                                                                      600
                                                                      660
tgtgattccc tggttgacac tgtgttcaac accgtgtgga ccttgggctg ccgcccttt
                                                                      720
atgaatagtc agcgggcagc ttgcatctgt gcagaggagg agaaggaaga gttatgagga
                                                                      780
agaagtgatt ccttcctggt tttgagtgac accacagctg tcagccttca agatgtcaag
tcttcgagtc agcgtgactc attcgttctt ccaacagttt ggacaccaca aagcaggaga
                                                                      840
                                                                     900
aagggaacat ttttctacag ctggaaagtg agtcctatcc ttgaggaaa tttgaaaaaa
gacatggagt ggtttgaaag ctactcttca tttaagactg ctctccccaa ccaagacaca
                                                                      960
tttgcctgga aattcagttc ttagcttaaa gactaaaatg caagcaaacc ctgcaattcc
                                                                     1020
                                                                     1080
tggacctgat agttatattc atgagtgaaa ttgtggggag tccagccatt tgggaggcaa
                                                                     1140
tgactttctg ctggcccatg tttcagttgc cagtaagctt ctcacattta ataaagtgta
ctttttagaa catttggaaa aaaaaaaaaa aaaaa
                                                                     1175
<210> 118
<211> 572
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (106)..(106)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (110)..(110)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (422)..(422)
<223> n equals a,t,g, or c
```

```
<220>
<221> misc_feature
<222> (427)..(427)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (548)..(548)
<223> n equals a,t,g, or c
<400> 118
ggcacgagcc agggcccagc atcagaagcc ggccgttttg atagacgtgt tccctctgcg
                                                                     60
teettgeage etteeatetg tgetaeetee eaggaageeg aagegneagn agteeettte
                                                                    120
ggatggcact gggagcagga aaatgaggtg attatgggct gctgctccaa gaagtattgg
                                                                    180
                                                                    240
cagctgttgc tgggggcggc tccctggggt gtcatccctt kcttgctctt gtggatggga
                                                                    300
accagagcac cccacttcaa agactctgta agccagggct taccaragaa agctgaagag
                                                                   360
tctagggcca attttaatca gtttcttgtg cttctcatgc caaaagagat gattgcctc
                                                                    420
actatagttc atcctatagt gcggcgggcc tgactcgcta ctgccctcta atgttctggg
anagaanctg ttgggtcttt cctacctaat ctggtagaaa tgtgagaaca gaggctaatt
                                                                    480
tggggaaata aatctctcaa tttttttgag ttgctttgtg tgtgtgcgcg cgcgcatgtg
                                                                    540
tgtgtgtnag gggcagggtc tctaagaaag aa
                                                                    572
<210> 119
<211> 1633
<212> DNA
<213> Homo sapiens
<400> 119
                                                                     60
ggcacgagca tcagtaagta ggagctaggg aagagaaagc atgcaaaagg gcaagaatca
                                                                   120
ggagaattga tatagtagct ggacagaact ctagatgtgt gtgtgtgaga gaagagagg
cagggagaag gagggaggag ttacccccac gatgacctcc aacttccctt tctgcaccct
                                                                    180
                                                                    240
gggctcaggg gtgggggagg ggctgcacca cattaggacc tgccgtactc caatcccatg
                                                                    300
cagtcctcct gctcctgdg ctgcgtgcct gggctctggt catgccaggc ttccttgtgt
                                                                    360
cctgcgtctg tggccggttc ctgccaacct gtctagtcct ttcaggcttg aggccctgca
                                                                    420
ttgctctttc tggtcctctc ccctccttcc cgctccccat ctagcctttt ttgggttccg
                                                                    480
ggatctgctg acagactttc ttcttgctgc ctgcctgctt acatttcag agacccctct
                                                                   540
ggaactgccc atggctgtgg tccacctgct ggtagcaacg ccctgttacc aaatgctaga
                                                                    600
taatetgeca eteceetetg eageegeeaa etggtgetga getgeeacet gttgtetgtt
                                                                    660
tccacaccct tgtacactgc attctgcctg tcactctgga cagctgccca gcagctgcag
                                                                    720
                                                                    780
ctgaggccgt cctgccagca cctaccgcag ccccatgggt ggtcctgtcc agttcctggc
gctcccagcc tgcctcatct gctgtactta cagagccaca tctggttgaa tacagagctg
                                                                    840
                                                                    900
gggtagcctg gatgggccca tggcacactc actcccagag aggcgggcat cctctctctg
                                                                   960
gacctctagg gaagggcagg gtctggagcc caataataaa acæagtaat gataatcata
gctaatgttt actgagaact taggatgtga taggctcaat gatttaccag aattactcta
                                                                   1020
tactgcataa ctaccctatc aggtaagtac tattaatatc ccctttccca catgaagaaa
                                                                   1080
                                                                   1140
ctaaggctaa ccaatagaaa tgaacctgtg taatgtccca tgggcataat tcatggagcc
aggattcaga accaggtgct ttacttcagg gctgaagctc ataaccacta gaccaaagcg
                                                                   1200
cetectecgt gacetetggg gaaggeecag caacateete tattgegtee aatgaettet
                                                                   1260
                                                                   1320
ccctggtctg agatccactg actcacaggg gtagggttaa ggttaaggcc agagtctcag
ctaagctttg gatactttct tctggatttg gagaagg&g gaataactga atttctgctc
                                                                   1380
                                                                   1440
atcttcagga gcggcctact agagccacac atttcccagc tctccttgtg tgtttcccag
                                                                   1500
accettette categtgtee tetecettag geteetggaa agtttteaga gagaateace
                                                                   1560
cagtggtaac attgttaaac aaaacaggaa aatgggactt gtgtgtatat atgattaaat
tattaattga tggatctacc ttcttagctc gtgccgaatt cgatatcaag cttatcgata
                                                                   1620
ccgtcgacct cga
                                                                   1633
```

```
<210> 120
<211> 1026
<212> DNA
<213> Homo sapiens
<400> 120
                                                                     60
gtotaaatgt toagttttto ttootaatto caatgatot cotoatttot caatgtoott
                                                                    120
tgtccatctt tgctgctcca tttgcactgc ctcccaaagg tcactgtggc tccttctctg
acttccacag tcaagttaca cttcataaaa attctaagct cattttcaga agccacaaat
                                                                    180
                                                                     240
ctatccttct ttaaagtctt caaactttga ttgtgtaaat aaatactcag aaacaagatt
tctaaaaaac aaacactatt ggccatcgta tgttcaaagg agataacaaa tgtttaacct
                                                                     300
tatatgttgt aggctttcta aacttaattt caaaaaaaga ctaaataaac agtgtcaata
                                                                     360
tgtctataaa ctcacaacga aaattttcag atcatccaat tgtgtattca ttggccggaa
                                                                     420
acaatcatgt aaaaaccaca gccctggagc tgggtagcat agaaacaaga agattcagca
                                                                    480
tttcatggtt ggtgactcaa atctctaaag ggktgtcagg ttaaaaaaaa aaaargaaaa
                                                                    540
gaaaagaata gaaatttgac ctgatctata aaaatgaaag tcgctgggca aagttttggc
                                                                     600
                                                                   660
ttttcactcc tgacaaagat gagctctctc ataggtagac caaggcacac gagtgatgac
tttcgtggcc ccaaaattct tcaagaaaat agtagattga ggaagcgatc tgcgcattga
                                                                    720
tagaggtgct gtttgaactg gatgacattt aagcttcctt ctttctccaa gattctgtga
                                                                    780
ggccatgaag catgctattt catccccact ccaattgctg tctccctggc ctggtgccct
                                                                    840
taccacctca atcttgggtc actgatctct tttgcaagaa atcagtcctg cctaccacct
                                                                    900
                                                                    960
gcaacttcat cttcctaaaa tgtcactttc cttaaggcct gctctgttca aaggccagtt
cccagccaca ccaatgtaaa ctcgtgccga attcgatatc aagcttatcg ataccgtcga
                                                                    1020
                                                                  1026
cctcga
<210> 121
<211> 1384
<212> DNA
<213> Homo sapiens
<400> 121
ggcacgagca gttattttca aaatggctat ggaaaacacg taagttttaa aatatgccct
                                                                      60
ctttctcgtt ttaaaaaatt attactattg tccatacatg ttactctttt catctagatt
                                                                     120
tatcatgttt ctttggcctc cagtdctgg tgtttgccta agctttatta gagacaggtc
                                                                    180
atttctacct atgtgtcatt ttatctatgt cttgatctta tgtaattcaa ttgctcttta
                                                                    240
agattatgtt ctcttctcat gtttggttta tccattatcc aaattttcca tttctttaac
                                                                     300
ctgttatccc ttgactcttt acagttctac ctttttattc acttagtctt ttacccttt
                                                                   360
tttattcgtt cacccctttt tgttgtttca ggtactcctt acttatctcc ttagcctttt
                                                                     420
cttcttcatc ttctttctta cttttctcct acttctcatt ttacataata cttacttttt
                                                                     480
gcttcagtct tcaaccattg tcaatcttgt ttttccttat attccatttt actttctgaa
                                                                     540
ctactcttta atctcctgtt caacactacc tttccttctt ttttatcccc tcttatttac
                                                                    600
acggtgatta caacagtttg gtatagtctg atttatctga ttgtaaaatt gatgagttgg
                                                                     660
                                                                    720
atgtaccaaa aatataagga agctaaattc aaagaaggta aaagatttgc ttgtgtcacc
                                                                   780
tagctggtta attttggcat atgcattgtt tctctacata gtctatgtagtcaaacaggt
ttcatttaga aatcattccc cataagaagg gtttcaattt gatttgaaca ggcagagatg
                                                                    840
gaaaaaattt cctctctgat aactactgct actgttgtat accagtagaa atataacagc
                                                                     900
                                                                     960
agcacttagg ttagaagaag ctcattagct attcagaata aatttcattt ttcttaattt
ttggtaatca tatctcagcc tgttgaattt aacttaaact ctgaaagaat tttggttgcc
                                                                   1020
                                                                   1080
atttaatttt taggtttcct taatgatagg gacctaataa tttgttttaa aaaatttgtc
ttggctggga gcagtggctc atgcctgtaa tcccagcact ttaggaagcc aacattggag
                                                                   1140
gattgcatga gcccaggatt tcgagaccag cctgggcaac acaggaaac ctcatctcta
                                                                   1200
caaaaagtta aaaaattaac caactgtggt gccacatgcc tgtagtccca gctgcttggg
                                                                   1260
aggatgaggt gagaggattt cttgagtcca ggagtttgag gctgcagtga gctatgatca
                                                                    1320
1380
aaaa
                                                                   1384
```

<210> 122

```
<211> 941
<212> DNA
<213> Homo sapiens
<400> 122
                                                                       60
ggcacgagat tttggcaagt gctgttatgt gaacaccacc atcacaatca agatagtcta
tagttctagt accectgee etgaaacttg ettgttetgt ttagtaget eeteteecea
                                                                     120
                                                                      180
ccaccagccc ttgtcaactg actcattttc tgtctgtata gtttatatca tttccagaat
qtcatataaa tqqaattcta qaqtatgttt cctttgqagt cqcacctttc acttaatgct
                                                                      240
                                                                      300
tctgagactc atctgtcttg ttgcatatat cagtacagaa gtcatttctt ttattgctga
gtagtaatct gtcatatgga tgttccacag tttgtttatc catttatcac tggtggggat
                                                                      360
acttgggktt tcagttttca gtgattatga agaaagctgc tgtcaacatt tgcaaacagt
                                                                      420
ttgtgtgtcc acattgtckt agtaaataac taggagtgga attgccgggt tgtatggtaa
                                                                      480
                                                                     540
cagtatactt atctatgaaa aactgacaga cttttctaaaataactgtac cattttacat
                                                                      600
tcccaccacc agtgtatgaa agtcccagtt ccttaacttc actgacaatt ggtatgtcag
ggtttggttt catttttatt ttgttgttag gatttcaaag ggttatagcg ggatttcatt
                                                                      660
                                                                      720
ttggttttaa tttacacttc cctaatggcc attgagcatc tccactgctc gtttgctatc
catttgccta ttttcttttg tgaactatgt tcaaatcttt tgtccatttt tttaaaacct
                                                                      780
ggattgtttc ttattgattt ttgagagttc tttatatgtt ctggatagat atctttgtca
                                                                      840
                                                                      900
gttatgtgtt ttgcaaatat tgtataccat tatgtggctt gtgtttttat tccattaaca
                                                                     941
gtattttca cacaagaaaa aaaaaaaaaa aaamaaaaa a
<210> 123
<211> 1715
<212> DNA
<213> Homo sapiens
<400> 123
ggcacgaggg acattggagc tccccacacc actcattgct gcccaccagc tatacaacta
                                                                       60
                                                                      120
cgtggctgat cacgccagct cttaccacat gaagccattg cgaatggccc ggccaggggg
                                                                      180
cccagaacac aacgagtatg ccctggtgtc ggcatggcac agttctggct cctacctgga
ctctgaggga cttcgacacc aggatgactt tgatgtgtct ctgcttgtct gtcactgtgc
                                                                      240
tgcacccttt gaggagcaag gagaggctga gcggcacgtt ctgcggctac agttcttcgt
                                                                      300
ggtgctcacc agccagcgag agctcttccc caggctcact gctgacatgc gccgcttccg
                                                                     360
gaagccaccc agactgcccc ctgagccaga ggctcctggg agttcagctg gcagccctgg
                                                                      420
                                                                      480
ggaggcctca gggcttattc tagcgcctgg accggctcct ctgttcccac cactggctgc
                                                                      450
agaggtgggc atggcacgag cacggctggc tcagctggtg cggctggctg gagggcactg
ccgtcgggac accctttgga agcgcctctt cttgctggag ccaccggggc ctgatcgact
                                                                      600
                                                                      660
gcggctaggg gggcgcctgg ccctggcaga gctggaggaa ctcctagaag cagtccatgc
                                                                      720
caaatccatt ggggacatcg accccagct ggactgcttc ctatccatga cggtctcctg
                                                                      780
gtaccagage etgateaaag tteteetæg eegetteece agagetgteg eeattteeaa
agcccagact tgggaactca gtacctggtt gcgctgaatc agaagttcac tgactgctct
                                                                      840
                                                                      900
gcgctagtgt tctggactcc acttaggaaa gacgtctctg aagtggtttt ccgagaagcc
cttccagtac agccccagga cacgagaagc cccctgccc aactggtctc cacctacca
                                                                     960
                                                                     1020
cacctggagt ctgtcatcaa cacagcctgt ttcacccttc tggacccgcc tcctctgaag
                                                                     1080
ggagtggact ggaccactga atgtcactgt teettgaate atgggeetae cagattgeet
gccagaggca ggactgacca gcccttctgg gccccagggc aagccagaca ctgagtgaca
                                                                     1140
                                                                     1200
ccaaaggctt tgtaactatg tctgagggt ctgctgcccc agcctggcag caggaaccgc
cctccccaaa cacccacagc cactgaccca tccaggactc cagagagtca ggtcaacccc
                                                                     1260
                                                                     1320
gaggacccct tgggcccttc tggggtactc ctttcggccc ccctggtaga gtctcgggag
                                                                    1380
ttcacacagg gtggcaaaca ccccctagag ctcctctgcc tgaatcctgc ccctagcct
                                                                     1440
ttgaccactg tcagccacct gtgtcccttg agccttcggg tcttcacttc ccacttggac
                                                                     1500
atcactgctg gacattccca tcgagatgac acctgggttc caatcccagc tctgcctttg
                                                                     1560
aagcacttgc ggccaccgtc aagtcccttt gctctcggac cctgggtttc tcatccttta
atgaggtggg ttcagaægct ctcccatctt cacagcaacc ctggcactgg cttctcaatg
                                                                     1620
                                                                     1680
ggagggaagt cagcagagaa actgaagtgt tagacactat gtgtcccacc accccattac
                                                                     1715
agagacatat gacaatgaaa aaaaaaaaaa aaaaa
```

```
<210> 124
<211> 1437
<212> DNA
<213> Homo sapiens
<400> 124
cgcccgacgc cggaactgcg agctctcagc gggagccgag acggtgcagg gccggagaag
                                                                       60
                                                                      120
caccttcact cccagcctgc gccccgatgc tgcgcgttct gtgcctcctg cgcccctgga
                                                                      180
ggccccttcg ggcccgcggc tgcgcttccg acggggcggc cgggggctca gagatccaag
tgcgcgccct ggcgggtccg gaccaaggga tcactgagat tctgatgaac agaccttctg
                                                                      240
cccgcaatgc cttggggaat gtcttcgtca gtgagetgct ggaaactctg gcccagctgc
                                                                      300
gggaggaccg gcaagtgcgt gtcctgctct tcagaagtgg agtgaagggc gtgttctgtg
                                                                      360
caqqtqcaqa cctqaagqag cgqgaacaqa tgagtgaagc agaggtggg gtgtttgtcc
                                                                     420
                                                                      480
agogactoog gggootgatg aatgacatog cagoottooc tgcaccoaco attgoggota
                                                                      540
tggatgggtt tgccttgggc ggaggcctag agcttgccct ggcctgtgac ctccgagtgg
                                                                      600
cagcttecte ggcagtcatg ggactgattg agaccacgcg agggetecte eegggggcag
                                                                      660
gagggactca raggetgeee egttgtetgg gggtggeeet ggegaaggag etcatettea
cgggccgacg actgagtgga actgaggccc acgtactggg gctggtgaat cacgctgtgg
                                                                      720
cccagaacga ggaggggac gccgcctacc agcgggcacg agcactggcc caggagatcc
                                                                      780
                                                                     840
tgccccaggc ccccattgcc gtgcggctgg gcaaagtagc attgaccga ggaacggagg
                                                                      900
tggacattgc atctgggatg gccattgaag ggatgtgcta tgcccagaat attccaaccc
                                                                      960
gggaccggct agagggcatg gcagccttca gggagaagcg gactcccaaa tttgttggca
                                                                     1020
aatgacccc attttaacct tcagcatggg agatgcatgc cctgaagagc aggatccaga
                                                                     1080
aggaagattt gtggccagat tgccttcatc atttcacctc tccagacttc catttcttca
caaggatgat gatggaaata aaatgactgg cgtgatgcct ggaaccaagg tgctgatcct
                                                                     1140
                                                                     1200
accacctact gctaccttcc ttagcttcac cctggctaga aataatcacg agggttgggt
                                                                    1260
ttgctttgga aaatgcctgt ctctctactt gaatg#aaa gaattaaatt agatctctct
                                                                     1320
gagtettggt atcattgget etcageceet gacetetete agttateagg cacteattag
                                                                     1380
agatgtcaga agattttaag ataccectag tttetteetg tggaacaaca gaggtaataa
                                                                     1437
ataaactctg gacatcggtt gaaccagtgt caggggtcag actgcagatc ccagtct
<210> 125
<211> 1816
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (504)..(504)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1405)..(1405)
<223> n equals a,t,g, or c
<400> 125
gcgtggatcc aagatggcga cggcgatgga ttggttgccg tggtctttac tgcttttctc
                                                                       60
cctgatgtgt gaaacaagcg ccttctatgt gcctggggtc gcgcctatca acttccacca
                                                                      120
gaacgatece gtagaaatea aggetgtgaa geteaceage tetegaacee agetacetta
                                                                      180
                                                                     240
tgaatactat tcactgccct tctgccagcc cagcaagata acctacaagg cagagaatc
                                                                      300
gggagaggtg ctgagagggg accggattgt caacacccct ttccaggttc tcatgaacag
                                                                      360
cgagaagaag tgtgaagttc tgtgcagcca gtccaacaag ccagtgaccc tgacagtgga
                                                                      420
gcagagccga ctcgtggccg agcggatcac agaagactac tacgtccacc tcattgctga
caacctgcct gtggccaccc gctggagct ctactccaac cgagacagcg atgacaagaa
                                                                      480
gaaggaaagt gatatcaaat gggnctctcg ctgggacact tacctgacca tgagtgacgt
                                                                      540
```

```
600
ccagatccac tggttttcta tcattaactc cgttgttgtg gtcttcttcc tgtcaggtat
cctgagcatg attatcattc ggaccctccg gaaggacatt gccaactaca mcaggagga
                                                                  660
                                                                   720
tgacattgaa gacaccatgg aggagtctgg gtggaagttg gtgcacggcg acgtcttcag
gccccccca gtaccccatg atcctcagct ccctgctggg ctcaggcatt cagctgttct
                                                                   780
                                                                   840
gtatgatcct catcgtcatc tttgtagcca tgcttgggat gctgtcgccc tccagccggg
                                                                  900
gagctctcat gaccacægcc tgcttcctct tcatgttcat gggggtgttt ggcggatttt
                                                                   960
ctgctggccg tctgtaccgc actttaaaag gccatcggtg gaagaaagga gccttctgta
cggcaactct gtaccctggt gtggtttttg gcatctgctt cgtattgaat tgcttcattt
                                                                  1020
ggggaaagca ctcatcagga gcggtgccct ttcccaccat ggtggcttg ctgtgcatgt
                                                                 1080
ggttcgggat ctccctgccc ctcgtctact tgggctacta cttcggcttc cgaaagcagc
                                                                  1140
catatgacaa ccctgtgcgc accaaccaga ttccccggca gatccccgag cagcggtggt
                                                                  1200
acatgaaccg atttgtgggc atcctcatgg ctgggatctt gcccttcggc gccatgttca
                                                                  1260
                                                                  1320
togagetett etteatette agtgetatet gggagaatea gttetattae etetttgget
                                                                  1380
tcctgktcct tggtttcatc atcctggtgg katcctgktc acaaatcagc atcgtcatgg
tgkacttcca rctgtgtgca gaggnattac cgytggtggt ggagaaatty cctagtctcc
                                                                  1440
                                                                 1500
gggggctctg cattcwacgt cctggtttat gccatctttw attcgttaa caagtgactg
cagcgccaag cggcatccac caagcatcaa gttggagaaa agggaaccca agcagtagag
                                                                  1560
agcgatattg gagtcttttg ttcattcaaa tcttggattt tttttttcc ctaagagatt
                                                                  1620
                                                                  1680
ctctttttag ggggaatggg aaacggacac ctcataaagg gttcaaagat catcaatttt
tctgactttt taaatcatta tcattattat ttttaattaa aaaaatgcct gtatgccttt
                                                                  1740
1800
                                                                  1816
tctcggccgc aaggaa
<210> 126
<211> 776
<212> DNA
<213> Homo sapiens
<400> 126
                                                                    60
ggcacgagct gatttctatt tttaggagct acttggattt gtatgtattt tttctacgtg
aaaatatatg tactcttcac ttttgttcca gtactataat tgctcatgca ctctttctcc
                                                                   120
cctttgagaa cattcagtga aatacaactt catcaaagat ttgctcaaag gagaagaatc
                                                                   180
240
cacagaagat aggaggtttg acttggtggg ccataatgtt tattatcctt tttgaaataa
                                                                   300
cagggaccag cagcagtttt ctcaggataa atgctctacc ccacttctct atgaacaggt
                                                                   360
gtggggaggc ttactttcca ttttcatatt tatacactc tctacaaaag caatttttaa
                                                                   420
                                                                   480
tgaaggttag tggaattgtt aaaaatctga gagggaatga tgactggagg tgttttgggg
tttttttctg tattcatttt ttaatgagaa aagttttaaa tgtagtacag gttagaccca
                                                                   540
actactacct tactattata ggacgattct atgtttctgt taaagtattc aagtagcttt
                                                                   600
ctctggggga aaaagtacca cttggacact taaaggaatt gggatttttg tctactttgg
                                                                   660
ataaggcagt tgacttctta agtaaaagca atagtgtaaa atgtcatttt gtttggaatg
                                                                   720
                                                                   776
ttaagtgagc aaataaaaaa catgttgaaa ttgtaaaaaa aaaaaaaaa aaaaaa
<210> 127
<211> 406
<212> DNA
<213> Homo sapiens
<400> 127
aggttttcca gaaagttatc agatcttgct ttcctgatta gcagcagtta gcggggtgga
                                                                     60
taaaagcacc ccttcagagc aatctcattt ccatttcttt caggccactt atttttcca
                                                                    120
                                                                    180
acttttttc cgtatcttca taaatgtttc actcttcttt gttagtattt cttagtctct
                                                                    240
tgagtcaaga aatatttact gagtatgatt gcatgcataa gtagtgtgcg ttagagatac
                                                                    300
gatacctgta agacaccaca gtgctgggta gatccgggtg ccattgtctg ttgccagggc
                                                                    360
cgaagttggc attttgtaag tgttcgaata agcaccatgc cgtgggataa gaaataaaag
                                                                   406
tgtgtgcctc atctgtaaaa aaaaaaaaa aaactcgag gggggg
```

```
<210> 128
<211> 3102
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (3096)..(3096)
<223> n equals a,t,g, or c
<400> 128
tcgacccacg cgtccgccca cgcgtccggc ccagtagttt ttattgttgg gtttttgaaa
                                                                      60
                                                                      120
aaacctctac caagaatatg gtgtttttt tgtttgtttg ttttagaaaa attgggattt
                                                                      180
cccccaccc cgccccaccc agataaacta tatctacact gtctcgtcaa gttctctgac
acgatctttc tgggctctac atttcctact agtttgtgtc cagaaactgc aagttgacat
                                                                      240
gaatagagga caaaggttgt gtcttgttt tgtctctctc ttccctccct gcaactctct
                                                                     300
cksscctcct cccactctct tcccctcccc cctcctcca ctgtctctca cctccccac
                                                                      360
                                                                      420
ccccactct ctctcatctc tcgctgtgtc ctgtgtatgt gtgggtgtgt gtgtatttgg
gtgtgtaaat gttggttctt ccactactgg attttgtaat ctaggataaa tcacttttt
                                                                     480
tggggacttt gattttgctc cattacgttt tcattttttc tgagcactga ctgttctgaa
                                                                      540
agctgcacaa aacgtagaaa gaagacatag cgcctgccag ggaataggaa atgagggcac
                                                                      600
                                                                      660
ttacacatta atgtgaatta gtaattgtgg tatagaaatg ttttatagtg aaagattcaa
                                                                      720
atttgctttt caagaaaaat gccaaaagct atttaaataa ttcgaggtta catcgtargt
tttgattttt ctcaatttaa gatacagaaa tacagcaagc cttaatataa agtttcctaa
                                                                      780
                                                                      840
agtttcttca agtattttt aaggtggaga aatgcaggaa ttgtataacc agaattgttt
ctgcctttag cttttcagaa cttgagatgt ggcagcactg gactgggttt tttaaatgt
                                                                     900
                                                                      960
taggactagg aatgtttgct cttgttaatt atgaattaat tgattattaa gtttagaatg
catttttaca agtatctaac tatcaaattg tgtttagtaa cttgagtgta tgcacaagtt
                                                                     1020
tgatcaacag caaaatagag ttctgaattt cttttaaagt gatgatatat tattttgtga
                                                                     1080
                                                                     1140
aactttgtgt ttgaæatgt ttatttctgt ttatggtgta atcattctga ggtgaggctt
ttcttatttc ctttgcattt tgctagagct gtgctgagtt cagcatttgc ttatttaacc
                                                                     1200
actacataat gacagaccag ttattaggta ttagcatgtg tggtaataat aatagtggaa
                                                                     1260
                                                                    1320
cttcacactt acatcaattc agtgcagggg catagaataa aatataaat attggcagat
                                                                     1380
gtatgaaaag aagtgtgagt taaaaatatt gaatattggc aggtgtgaaa acaagtgtca
aaattcctca tatagagaaa ataattttga gtttagagta ttatctttta attaagtgta
                                                                     1500
gtctaaactt aactttctgt aaaggcactt tgtggtttty ccaaagatgt tctagatcta
tttggttgct ctatagtcaa acagctcttt tgaagacaac tgtcttattt tattacaaat
                                                                     1560
tggcttgaca tatyyatact gtaacattgt aatattgctg tgctgtacat tttggccctt
                                                                     1620
ackaaatacg tctttttcag aactgttaaa gttttgatgt acatcragct gaattctgtt
                                                                     1680
tttaccagtt tcaaaacctt caagtgatat gtggaaaaaagtgaatgaga cctctgatag
                                                                    1740
ggggttttca gaaccttgtt cacaccaaaa tgtgacagtt ctttcatgtt ttcctaaacc
                                                                     1800
                                                                     1860
aagttaaaat tacatgtata ttttggtgtt aaggttgatt tttaagatac ttctgatttg
tacaaaagga atgtttcctt tataaatcac agaagaaaat gacaatatct gttggatatt
                                                                     1920
                                                                     1980
tgatataatt taatggtgtt ataaaacctt taagaggatt catggtgaat atatgtgata
acatctttat actttgaaaa atgttccact tacccttcag atatttgttg taagttaatt
                                                                     2040
caattottaa taotttaatt ttgotocaac aagggottta tgttgotggt aagagaattt
                                                                     2100
atttactaaa tgcactatgt ataaagtgaa agatagttta cttatctgac tttgatatta
                                                                    2160
                                                                     2220
gatggctgac attagtgcac ataatgcaga gtttaacctt gattcttcaa cagagtccag
                                                                     2280
atttaaatgt ctacttagtt aattagttag ctgatattct tccacaatta atatattcaa
                                                                     2340
tttcccatca gtatatcact ttaaatttta tgtttttcta aggaaacttt ccacagaatt
                                                                     2400
ttaaacaact gatgcatcca tactcagggt gtagggagaa tactttgcat ttaaaaaaccc
                                                                     2460
tgtccacctg tcaccagcac aagagaatta gagcttcagt gagaatttag aaaaattata
ctaaagtgag atgcattttt tctcattttc agcaagactc ctctaagcat ttactcattt
                                                                     2520
actgtattcc tgctctgaag atgtggatacagaattagtc actcttgtca ctttatttat
                                                                     2580
ttattggttt ttttttaacc atctgtgtac attcctttca tagggtagag ttctagttct
                                                                     2640
agaagttott attttgtttt tgttgtaatg tttgaatact atttaatato cggttttaat
                                                                     2700
attgctggat ttgctacctt tggttacttg tgcagtgtta aaagtaatcc actttcttgt 2760
```

```
ttaatatacc agatacatag caaaagcagc ttggaataat tatagctgtt tatttggctg
                                                                     2820
tgctcagtta ctatattaag atcttgtact gtgtaacagt aactcttttt tgcttttcag
                                                                     2880
                                                                     2940
taatttaata tgttcactta acaaaatacg aactttgaga tgcactaaag ttttgtttca
gcagtggctc aaaaaatttc agaættact tttgtaatta tttgcaatta attgttcttt
                                                                    3000
tatcttacaa ttgtttaagc ctgtgatctt tcttctccca gctaagagtt cttcaataaa
                                                                     3060
                                                                     3102
tttaagaaat acaaaaaaaa aaaaaaaaaa aaaaanaaaa aa
<210> 129
<211> 1155
<212> DNA
<213> Homo sapiens
<400> 129
                                                                       60
ccgggtcgac ccacgcgtcc ggtgagtgca ctctaggatg ttcacatgat gacaaaatca
cctaacaatg tagacgcttc agaacatata ccctttgtta atcgatgcat cactgtatat
                                                                      120
atgtgtgtat atacacacat atatgtacat atatttaata catttgtgta tgtgtgta
                                                                      180
tatatatata tatatactto toætattta tactotagac coagagooto ctagotggto
                                                                      240
                                                                      300
tccaaaattg gactctcatc tctctttgag acagccttca aatgatcgtt tttaaagtgc
                                                                      360
taattaactc ctcttctcaa aatgcttcaa tggcccacta atctctaccg aatcaaggaa
ttcagccata ctgtcccaag atatctttcc ttggccagtt ggagcctcat ttcgctgct
                                                                     420
ctgggtttat cccctgtctc ttctttccca cttccaagcc tgtgctcagc ccacctcctc
                                                                      480
                                                                      540
ttctggggat gccccacacc ccactctgcc atatctgcca aacctttcat ctccccgtga
                                                                      600
agctcttgac accaaataca gtttacttta gaaaatgtat tttttccact ttctcaacta
aacttttcct tgtgtgatct gcttttccgc tgccaaggca catcgttttt aattctctac
                                                                      660
agcactgctc atatcttgcc cagtattata gcttctacat attggtcttg cttcttattt
                                                                      720
ttgagcacaa aaactaagcc actccacttt ctcttaccag tgaatccagc ttaaaaaaac
                                                                      780
                                                                     840
tgtgagcaac ctatcagtat tttgttgaca tgaactctat agaaaccta gtccctggat
cttcgactct gcctcccctg acatttatct gctcccacaa agcacgcagg tgtgggaaga
                                                                      900
gaagtggctg ttttttgagg tcacatttca gccctgattc atcctaatgt cttcaccctt
                                                                      960
tttatccttt ggscactgtg tycctagaga tgtgaattca attccgcacc attctctcct
                                                                     1020
ttacaatgat g\inftyaatattc tcaggctttt aagactaaat tttaaattac gagaaaattt
                                                                     1080
gatcttcaaa cttaagttgg acctagaaag aacaatctca tgaactcaaa aaaaaaaaa
                                                                     1140
                                                                     1155
aaaaaaaaa aaaaa
<210> 130
<211> 1459
<212> DNA
<213> Homo sapiens
<400> 130
acgcgtccgg cgtctgcagc tgcaggggag gaggactggg tccttccctc tgaagttgaa
                                                                        60
                                                                       120
gtgttggagt ccatctatct agatgaacta caggtgatta aaggaaatgg cagaacttca
ccatgggaga tctacatcac tttgcatcct gccactgcag aggaccagga ttcacagtat
                                                                       180
                                                                      240
gtctgcttca ctctggtgct tcaggtccca gcagagtatc cccatgaggt gccacagatc
                                                                       300
tctatccgaa atccccgagg actttcagat gaacagatcc acacgatctt acaggtgctg
ggccacgtgg ccaaggctgg gctgggcact gccatgctgt atgaactcat tgagaaaggg
                                                                       360
aaggaaattc tcacagataa caacatccct catggccagt gttcatctg cctctatggt
                                                                      420
ttccaggaga aggaggcctt taccaaaaca ccctgttacc actacttcca ctgccactgc
                                                                       480
                                                                       540
cttgctcggt acatccagca catggagcaa gagctgaagg cacaaggaca ggagcaggaa
caggaacggc agcatgctac aaccaaacag aaggcagtcg gtgtgcagtg tccagtgtgc
                                                                       600
                                                                       660
agagagecee tegtgtatga tettgeetea etgaaageag eecetgaace eeaacageet
                                                                       720
atggagctgt accagcccag tgcagagagc ttgcgccagc aagaagaacg caagcggctc
                                                                       780
taccagagge ageaggageg ggggggaate attgacettg aggetgageg aaaccgatae
                                                                      840
ttcatcagcc ttcagcagcc tcctgccccg gcggaactg agtcagctgt agatgtctcc
aaaggatccc aaccacccag caccettgca gcagaactat ccacctcacc agccgtccaa
                                                                       900
 tccactttgc cacctcctct gcctgtggcg acccagcaca tatgtgagaa gattccaggg
                                                                       960
 accaggtcaa atcagcaaag gttgggcgaa acccagaaag ctatgctaga tccccccaag
                                                                      1020
```

```
1080
cccagtcgag gtccctggcg acagcccgaa cggaggcacc cgaagggagg ggagtgccac
gcccctaaag gtacccgtga cacccaggaa ctgccacctc ctgaggggcc cctcaaggag
                                                                 1140
cccatggacc taaagccaga accccatagc caaggagttg aaggccccca caagagaagg
                                                                 1200
ggcctggcag ctggcagggg cccccacccc gaggactcg ggactgtgtt cgctgggagc
                                                                1260
                                                                 1320
gctctaaagg ccggacaccc ggttcttcct accctcgcct gcctcggggc cagggagcat
                                                                 1380
accggcctgg tactcggagg gagtccctgg gcctggaatc taaggatggt tcctagcagg
acttggtggg gggaacaggg aattggggat gggagggagg caataaagat atttggcctt
                                                               1440
                                                                 1459
caaaaaaaa aaaaaaaaa
<210> 131
<211> 870
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (743)..(743)
<223> n equals a,t,g, or c
<400> 131
ggcacgagca gatattaaat ctcacagaæ ggtgttcctt attaatcttt acaaaattgt
                                                                  60
catttccccg gtgaagccaa tttacattaa aaataatgtt cagaaaatgc tgctgcctgc
                                                                  120
tttctctcct cttttaccca ccccttgttc tcccagcaat cttcgccctg tatgtttatg
                                                                  180
tggacaattt ctattgtaac attctccatt ccattaactc tgcctcttcc tctgaggggg
                                                                 240
gaaaataaaa ccctaaatgg ctctaatagt tatgtatttt attttgtctc agaggtttcc
                                                                  300
                                                                  360
aaacttctgc ttttagcttc cttttcactg ggacaaatgg atgtaagtta ttttccagtt
                                                                  420
tcctgaaaaa taatcaggga ctattttctt catctatctc aggtgcttca tgagtttcct
aagatattaa ttacggtttc catacattca gaatcaaggg actcacggat atggtactgt
                                                                  480
gttcactgct acacagagtt tttctagaaa aaaaaattct ttatttttat cttctatttg
                                                                  540
                                                                  600
tatccaaacg atggtaaaac aaaattcctc tttagctagg tactgggatt ttttctttag
                                                                 660
qaaatactaa tagagttaca aaggttagct tataggtaga caaaagactg gcggcaaac
agagcagtgg gtgaaatggg tccctgggtg acatgtcaga tctttgtacg taattaaaaa
                                                                  720
780
840
                                                                  870
<210> 132
<211> 1835
<212> DNA
<213> Homo sapiens
<400> 132
ggcacgagag ccgccctggg tgtcagcggc tcggctcccg cgcacgctcc ggccgtcgcg
                                                                   60
                                                                 120
cagcctcggc acctgcaggt ccgtgcgtcc cgcggctggc gcccctgact ccgcccggc
                                                                   180
cagggagggc catgatttcc ctcccggggc ccctggtgac caacttgctg cggtttttgt
                                                                   240
teetgggget gagtgeete gegeeecet egegggeeea getgeaactg eacttgeeeg
ccaaccggtt gcaggcggtg gagggagggg aagtggtgct tccagcgtgg tacaccttgc
                                                                   300
                                                                  360
acggggaggt gtcttcatcc cagccatggg aggtgccctt tgtgatgtgg ttcttcaaac
                                                                   420
agaaagaaaa ggaggatcag gtgttgtcct acatcaatgg ggtcacaaca agcaaacctg
gagtatectt ggtetaetee atgeceteee ggaacetgte eetgeggetg gagggtetee
                                                                   480
                                                                  540
aggagaaaga ctctggcccc tacagctgct ccgtgaatgt gcaagacaa caaggcaaat
ctaggggcca cagcatcaaa accttagaac tcaatgtact ggttcctcca gctcctccat
                                                                   600
                                                                   660
cctgccgtct ccagggtgtg ccccatgtgg gggcaaacgt gaccctgagc tgccagtctc
                                                                   720
caaggagtaa gcccgctgtc caataccagt gggatcggca gcttccatcc ttccagactt
tctttgcacc agcattagat gtcatccgtg ggtctttaag cctcaccaac ctttcgtctt
                                                                  780
ccatggctgg agtctatgtc tgcaaggccc acaatgaggt gggcactgcc caatgtaatg
                                                                   840
 tgacgctgga agtgagcaca gggcctggag ctgcagtggt tgctggagct gttgtgggta
                                                                   900
```

```
960
ccctqqttgg actggggttg ctggctgggc tggtcctctt gaccaccgc cggggcaagg
                                                                     1020
ccctggagga gccagccaat gatatcaagg aggatgccat tgctccccgg accctgccct
                                                                     1080
qqcccaaqaq ctcaqacaca atctccaaga atgggaccct ttcctctgtc acctccgcac
gagccctccg gccaccccat ggccctccca ggcctggtgc attgaccccc acgcccagtc
                                                                     1140
                                                                     1200
tctccagcca ggccctgccc tcaccaagac tgcccacgac agatggggcc caccctcaac
                                                                     1260
caatatecee cateeetggt ggggtttett eetetggett gageegeatg ggtgetgtge
ctgtgatggt gcctgcccag agtcaagctg gctctctggt atgatgaccc caccactcat
                                                                     1320
tggctaaagg atttggggtc tctccttcct ataagg&ca cctctagcac agaggcctga
                                                                    1380
gtcatgggaa agagtcacac tcctgaccct tagtactctg cccccacctc tctttactgt
                                                                     1440
                                                                     1500
gggaaaacca tctcagtaag acctaagtgt ccaggagaca gaaggagaag aggaagtgga
tctggaattg ggaggagcct ccacccaccc ctgactcctc cttatgaagc cagctgctga
                                                                     1560
aattagctac tcaccaagag tgaggggcag agacttccag tcactgagtc tcccaggccc
                                                                     1620
                                                                     1680
ccttgatctg tacccaccc ctatctaaca ccacccttgg ctcccactcc agctccctgt
                                                                     1740
attgatataa cctgtcaggc tggcttggtt aggttttact ggggcagagg atagggaatc
                                                                    1800
tcttattaaa actaacatga aatatgtgtt dtttcattt gcaaatttaa ataaagatac
                                                                     1835
ataatgtttg tatgaaaaaa aaaaaaaaaa aaaaa
<210> 133
<211> 407
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (352)..(352)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (376)..(376)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (378)..(378)
<223> n equals a,t,g, or c
<400> 133
ctttctgggt ttagggaagt ggtggacaag gcaggagaga accacattca tcttctcctc
                                                                       60
ttgtgtttgt cttctgtctt tcætaacgt ccatgaactg tgaggttagt gtcttggctg
                                                                      120
agagataagt awggctkggc atkgattctt ytgtkgtwac ctcaagctgt tttctagtcc
                                                                      180
ccaagaacag caytytcagt gggtgtggaa gtgggcggga catgaagcaa tggttttaca
                                                                      240
                                                                     300
ttgcattgcc tggctacags ttggcatttc tttccttttt cttttcttt gcgcattgc
                                                                      360
cattggtgcc actaattttg cttcccctyt cttttataaa cttgtttcct cnggagttgc
                                                                      407
ctaagagtcc tgcatnanaa cctaattggg aatgaagcag tgtgttc
<210> 134
<211> 711
<212> DNA
<213> Homo sapiens
<400> 134
                                                                       60
ggcacgagcg aagaccctgt tcggaccctg ccccgattcc agactcaggt agatcgtcgg
                                                                      120
cataccetet accetegaca ccaggeagee etggggetga tggagagaga teaggtatee
                                                                      180
cccagggagt aggggctacc ttgaggggat gatagacctc ccccactccc agtgkkactc
tggaaatatg aaggaactag ggagtggaag agatttcaga gctggggaga ggagtcctc
                                                                     240
ccttcaaagc cagcaactgc ctttggggaa tgtcgggggg tctctccttt ctcctgcttg
                                                                      300
```

```
tgtkargtgg tacacagtcc ccccttcacc tggcgggaag ctgtcccgga cagactcatc
                                                                      360
                                                                      420
tcagctttcc cttggggcag gatcgggggc agcagctcca gcagaaacag caggatctgg
agcaggaagg cctcgaggc acacaggggc tgctggccgg cgagtgggcc ccaccctct
                                                                      480
ggragctggg cagcctcttc caggccttcg tgaagaggga gagccaggct tatgcgtaag
                                                                      540
cttcatagct tctgctggcc tggggtggac ccaggacccc tggggcctgg gtgccctgag
                                                                      600
tggtggtaaa gtggagcaat cccttcacgc tccttggcca tgttctgag ggccagcttg
                                                                     660
gcctttgcct taataaatgt gctttatttt caaaaaaaaa aaaaaaaaac t
                                                                      711
<210> 135
<211> 890
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (818)..(819)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (829)..(829)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (859)..(859)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (887)..(887)
<223> n equals a,t,g, or c
<400>,135
cttgtaaatg tttcttttcc cttaaataca gataattat ttgtattgct tattttatta
                                                                      60
tgagctacaa caaaaggact tcaggaacaa gtaatgtatt agtatggttc aagattgttg
                                                                      120
ataggaactg tctcaaaagg atggtggtta ttttaaatat aaatagctaa tgggggtggt
                                                                      180
aggcctataa aattaaatgc cttgtataaa atccaaaatg aatgcaaaat tgttttcact
                                                                      240
tgtattgact ttatgttgta tgattccaat ctctgttctg tttggcactt gtatttaatt
                                                                      300
cttcaccttt gtaagacatt tgtatattgt ggatgtgttc attcaagcta tttaatatct
                                                                      360
ggcactgtta atacacagta ctttattgta cagactgttt tactgtttta attgtagttc
                                                                      420
tgtgtacttt ttttggatgg ggctggcatg tttctttgt ttcctggcaa tacgacgtgg
                                                                     480
gaatttcaat gcgttttgtt gtagatgcta acgtgtcaga atcctttaca ttcaactttt
                                                                      540
ctaagaaaag cattttcagt cttgtagtgt gtgcttacag taactaattt tgttgaaaat
                                                                      600
ggtttcaagt tattcaaatt tgtacaggac tgtaaagatt tgttgacagc aaaatgttga
                                                                     660
agaaaaaagc ttatagaata aaagctataa agtatatatt aggatctgca aacaatgaag
                                                                      720
aattatgtaa tatattgtac aaatgtaagc aaaggctctg aaataaaatg ccatagtttg
                                                                      780
tgaaaaaaaa aaaaaaaaa actcgagggg gggcccgnna cccaatcgnc caaaagtgag
                                                                      840
tcgtattaca attcactgng ccgtcgtta caacgtcgtg actgggnaaa
                                                                     890
<210> 136
<211> 1161
<212> DNA
<213> Homo sapiens
<400> 136
ggggaaacgg agctctgggt gtgatatttc ctctgcattt tcctgtcggg gtggtgaaat
                                                                       60
```

```
180
ctctaacttt cttggttgct gcaactcaga gagcgctgga atggacccag ggcatgctcc
                                                                      240
tcatctcagc ggttcaggtt ttcattcttc tatctccatc cttctattta attctgtact
                                                                      300
tactaagacc tgggggtaca gggaggggct tggagcctat ttgcccagct gctgaatggg
gaggttggag agatggatac ttatggtcc agtaccagga gccaactgtt tcccttgaca
                                                                     360
actggggaaa ctgaggccca cagagccaag gccacttgcc cgtggttacc taaagatgtt
                                                                      420
aacgagaaat ccgggtctgg aactcagatc cctttgtatc ctgtttcggt gttggtgtag
                                                                      480
tttgttgctt tccctaagat gagcccagat agggaaactg aagtgcctgg gstcctggtt
                                                                     540
gggtcttctg cggggagaga atggcgattc aactcccgtg tactgttgaa cttgacacaa
                                                                      600
                                                                      660
acacgctcac atcccaggct gcatacgtgt tttgctttag aaatgacatg aagccttttg
                                                                      720
actattttta agagaaaggc aatggctgtg atatttcccc tgcacctccc tctcggggcc
                                                                     780
acttqqttaa atqtcaggaa agggagagta tttcctggtc aggaacattc agagcttgct
qqqaqctqaa qttttgtttt ccattaagta ggtattcggg gagtctattt ccctctgcct
                                                                      840
                                                                      900
cctctgtttc cctggaarct tgcgcttgac agttgcaggg aggaggggtt tgagaatgag
                                                                     960
cagccgagat gcccacgtat cgcgtgcccg ctctaggagt ggcggggtgg tatttttag
ccatcctgat tcagtagagg catttcagcg tttgttcaat atttaattat ccatctgaaa
                                                                     1020
ttggcccatg tggccttcag tttggaagca gctctctgtg ctgtgatttc ccagttgcat
                                                                     1080
aaataaggaa gtcaagggaa tctcaatagc cctccaaata ataataacga aaaaaaaaa
                                                                     1140
                                                                     1161
aaaaaaactc gacggcacgt a
<210> 137
<211> 2152
<212> DNA
<213> Homo sapiens
<400> 137
ccgctttgtt ctccagatgt gaatagctcc actataccag cctcgtcttc cttccggggg
                                                                       60
acaacgtggg tcagggcaca gagagatatt taatgtcacc ctcttggggctttcatggga
                                                                     120
                                                                      180
ctccctctgc cacatttttt ggaggttggg aaagttgcta gaggcttcag aactccagcc
taatggatcc caaactcggg agaatggctg cgtccctgct ggctgtgctg ctgctgc
                                                                      240
tgctggagcg cggcatgttc tcctcaccct ccccgccccc ggcgctgtta gagaaagtct
                                                                      300
                                                                      360
tccagtacat tgacctccat caggatgaat ttgtgcagac gctgaaggag tgggtggcca
tcgagagcga ctctgtccag cctgtgcctc gcttcagaca agagctcttc agaatgatgg
                                                                      420
ccgtggctgc ggacacgctg cagcgcctgg gggcccgtgt ggcctcggtg gacatgggtc
                                                                      480
                                                                     540
ctcaqcaqct qcccqatggt cagagtcttc caatacctcc cgtcacctg gccgaactgg
ggagcgatcc cacgaaaggc accgtgtgct tctacggcca cttggacgtg cagcctgctg
                                                                      600
                                                                      660
accggggcga tgggtggctc acggacccct atgtgctgac ggaggtagac gggaaacttt
                                                                      720
atggacgagg agcgaccgac aacaaaggcc ctgtcttggc ttggatcaat gctgtgagcg
ccttcagagc cctggagcaa gatcttcctg tgaatatcaa attcatcatt gaggggatgg
                                                                      780
aagaggctgg ctctgttgcc ctggaggaac ttgtggaaaa agaaaaggac cgattcttct
                                                                      840
ctggtgtgga ctacattgta atttcagata acctgtggat cagccaaagg aagccagcaa
                                                                      900
tcacttatgg aacccggggg aacagctact tcatggtggaggtgaaatgc agagaccagg
                                                                     960
                                                                     1020
attttcactc aggaaccttt ggtggcatcc ttcatgaacc aatggctgat ctggttgctc
                                                                     1080
ttctcqqtaq cctqqtaqac tcgtctqqtc atatcctggt ccctggaatc tatgatgaag
                                                                     1140
tggttcctct tacagaagag gaaataaata catacaaagc catccatcta gacctagaag
                                                                     1200
aataccggaa tagcagccgg gttgagaaat ttctgttcga tactaaggag gagattctaa
                                                                     1260
tgcacctctg gaggtaccca tctctttcta ttcatgggat cgagggcgcg tttgatgagc
ctggaactaa aacagtcata cctggccgag ttataggaaa attttcaatc cgtctagtcc
                                                                     1320
ctcacatgaa tgtgtctgcg gtggaaaaac aggtgacacg acatcttgaa gatgtgttct
                                                                    1380
                                                                     1440
ccaaaagaaa tagttccaac aagatggttg tttccatgac tctaggacta cacccgtgga
                                                                     1500
ttgcaaatat tgatgacacc cagtatctcg cagcaaaaag agcgatcaga acagtgtttg
gaacagaacc agatatgatc cgggatggat ccaccattcc aattgccaaa atgttccagg
                                                                     1506
agatcgtcca caagagcgtg gtgctaattc cgctgggagc tgttgatgat ggagaacatt
                                                                     1620
                                                                     1680
cgcagaatga gaaaatcaac aggtggaact acatagaggg aaccaaatta tttgctgcct
                                                                     1740
ttttcttaga gatggcccag ctccattaat cacaagaacc ttctagtctg atctgatcca
```

aactggtttg aacccagtcc actggactcg aaagctcatg ctcagaagcc ccagggctcc

120

1800 1860

ctgacagatt cacctcccc acatccctag acagggatgg aatgtaaata tccagagaat

ttgggtctag tatagtacat tttcccttcc atttaaaatg tcttgggata tctggatcag

```
1920
taataaaata tttcaaaggc acagatgttg gaaatggttt aaggtccccc actgcacacc
ttcctcaagt catagetget tgcagcaact tgatttcccc aagteetgtg caatageeee
                                                                   1980
                                                                     2040
aggattggat tccttccaac cttttagcat atctccaacc ttgcaatttg attggcataa
tcactccggt ttgctttcta ggtcctcaag tgctcgtgac acataatcat tccatccaat
                                                                     2100
                                                                     2152
gatcgccttt gctttaccay tctttccttt tatcttatta ataaaaatgt tg
<210> 138
<211> 1002
<212> DNA
<213> Homo sapiens
<400> 138
ggcacgagec cageggaage caagecaeca ggeeeeceag egteeaegeg gageatgaae
                                                                        60
                                                                       120
attgaggatg gegegtgeee geggeteece gtgeeceeeg etgeegeeeg gtaggatgte
                                                                     180
ctggccccac ggggcattgc tcttcctctg gctcttctcc ccacccctgg gggccggtgg
                                                                      240
aggtggagtg geegtgaegt etgeegeegg agggggetee eegeeggeea eeteetgeee
cgtggcctgc tcctgcagca accaggccag ccgggtgatc tgcacacgga gagacctggc
                                                                       300
                                                                      360
cgaggtccca gccagcatcc cggtcaacac gcggtacctg aacctgcaag agaacggcat
ccaggtgatc cggacggaca cgtcaagca cctgcggcac ctggagattc tgcagctgag
                                                                      420
                                                                       480
caagaacctg gtgcgcaaga tcgaggtggg cgccttcaac gggctgccca gcctcaacac
gctggagctt tttgacaacc ggctgaccac ggtgcccacg caggccttcg agtacctgtc
                                                                       540
                                                                     600
caagetgegg gagetetgge tgeggaacaa eeceategag ageateeeet eetegeett
                                                                       660
caaccgcgtg ccctcgctgc ggcgcctgga cctgggcgag ctcaagcggc tggaatacat
ctcggaggcg gccttcgagg ggctggtcaa cctgcgctac ctcaacctgg gcatgtgcaa
                                                                      720
cctcaaqqac atccccaacc tgacggccct ggtgcgcctg gaggagctgg agctgtcggg
                                                                      780
                                                                      840
caaccggctg gacctgatcc gcccgggctc cttccagggt ctcaccagcc tgcgcaagct
                                                                      900
gtggctcatg cacgcccagg tagccaccat cgagcgcaac gccttcgacg acctcaagtc
                                                                       960
gctggaggag ctcaacctgt cccacaacaa cctgatgtcg ctgccccacg acctcttcac
                                                                    1002
gcccctgcac cgcctcgagg gggggcccgg tacccaattc gc
<210> 139
<211> 1113
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (349)..(349)
<223> n equals a,t,g, or c
<400> 139
gttggtgttg agcacagctt taggcttaga ttcttcatca actaggagaa gctgtgcttc
                                                                        60
                                                                      120
aatacagtta ttogtttgca tggttcctaa tgtgcttcac tcaatttagc agaatttttt
                                                                       180
ttttaacctc ttccttgacg ctagctgctt gtgcaaatca catcttggcc gcctactctt
cttcacttgc tgacagatgt gtaggtgaga aaagtctcat agtcattgtt cctgaaagaa
                                                                       240
                                                                      300
gcttccagac ccacttctag ggccagtgac atatgcagga aatagctgc ttctgggcca
                                                                       360
ggacagagct ggtctttttt ttagtggggg atggcgggca gtggggcang ggacattcaa
                                                                       420
aatttatttt ccaacagaca gatagcatca gcaggtacaa ctacaagggt atctacatag
                                                                       480
atcatacatt cacaaggcat tattagttca acagtgagaa agccactcgt gggttttctg
                                                                       540
taacaatatc ccacttcata gtgtaaacag gtactatttt gttcacttac aattccggaa
                                                                       600
ggaagggcac accttgcagg ggggaagaaa aggggaatcc taaagtaagg tgcaacaatt
                                                                       660
aagagacaac actttggcta acaatcttgg atccacattt cagtcagggc cttccacata
\tt gaggggaaag \ actttctct \ cagaagttag \ aatctttct \ cctcctttct \ tgttaaactg
                                                                      720
agagcagtgt tttgtttgct caatattaca tgtacaaaag gagattagaa gaaaatgcat
                                                                       780
                                                                       840
cacaaaacca tcttgaacgt tcagctcttc ctgccaatac atcacaactc ttaggtttta
                                                                       900
gacggggcct gggaatacgt aagtgttttt tcttttttt ttttttaagt gaaagcaagt
ttattacgaa agcaaaggga taaaagaatg gctgctccat aggcagagag cagcccagta
                                                                       960
```

```
1020
atcttaaaat aggaaaatag acactatggc tacaaaaaat aaaaaataaa tgaggtagat
                                                                   1080
aaaattttca cacccaggac ttgcctgttc caacttcata gtcttcatga aatattcatc
aagaagacaa aaaaaaaaaa aaaaaacctc gta
                                                                   1113
<210> 140
<211> 1668
<212> DNA
<213> Homo sapiens
<400> 140
aatttcgaac acccataaaa ttgtaaagaa ttgtacagta cattttaaca tattkgcttg
                                                                      60
ttacaaycta tacatttwaw gttttttaac cacttcaaag taagtttcag acaccaacac
                                                                     120
attttttaaa tgatccctac cattttttaa atgatcccta ccaaaatgga aggctggtat
                                                                     180
cccaaggttt tgttccattt ctcaattcta gtctgtgaaa ttgargtctg atgaccactc
                                                                     240
                                                                     300
ttaagrgggc tgttcattag ggkgcgggct gggcattatg agtgttttt tcatgagkca
gtggaaggag gggcttgttg tgagcagtgc atgagaaaaa cggcttggct ttgcttcttt
                                                                    360
ttccagctct gtggccttgg tcaggttacg tctcttcagt atcgtaactg taatgtggag
                                                                     420
ataaagcctt cattagttag gggcacacac cgcagtattc cttaagtcat cttgatgaca
                                                                     480
agtgaatgca aggcagctgg tacctttcag gtagtagttg aattcaggta gtattgttca
                                                                   540
gttttttttt ttcccttcat gttctaagac cagctgagag gcaaagttgt accactgagc
                                                                     600
tctagttgtt gttacctaaa aagsccttgt tttaaatttc tgtgatacct aagaatttca
                                                                     660
aatctgggtt gtcatggatt ctttattctt tttttctccc ttaaaaagtt acattttaga
                                                                     720
tgaaatcccc tttyttaaaa tgggcaægc aataattcta catcatttct ccccttccct
                                                                    780
tccacttgtt tagactaaga tatgttagag agggaaaggg tcgttgtttt agtaaatact
                                                                     840
attgctgttg acatgttaat actattgctg ttgacatgtt tactgatggg ctgtgttcca
                                                                     900
taattttgtt ttaggtcttt tgtttgaaac agtttactgt ttttatcagt tttggtcct
                                                                   960
aatttttcct aacctacagt ttttctctga gtacatatgg tttcattgtt tgatctactt
                                                                    1020
                                                                    1080
tctatctatc tgaatatgaa cttctaggat catgtttatt ctagtagatg atgacttaaa
gcctgcagta taggagggac aacgtcaact actgcatgtg caataacaag cttgaaggga
                                                                    1140
                                                                   1200
agctaaatgt ttgttacaaa ttaagacag tattttaatg ccgtttgcat ttttctaaga
attttctata aagctaattc tgktattttt tgtctctaaa ttagggaact gtccaggttt
                                                                    1260
attgctgccg ggagactaca ctgcaaaata gataaagtga atgaaatagt agaaaccaac
                                                                    1320
aggtactctc atttctcaga ataagggggc attcctaaat tttaaaaggta gkgcaactat
                                                                  1380
tgkcatggaa taatgtgact ggtaaataat tcattttttc ttgaatttat ttatagacct
                                                                    1440
gatagcaaga actggcagta ccaagaaact atcaagaaag gagatctgct actaaacaga
                                                                    1500
gttcaaaaac tttccagagt aattaatatg taaagccatg taactaacaa aggatttgct
                                                                    1560
ttagagataa ttatttggaa tttttatagc ttacttcaca atgtgcccag gtcagctgta
                                                                   1620
1668
<210> 141
<211> 1555
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1248)..(1248)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1389)..(1389)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1391)..(1391)
```

```
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1393)..(1393)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1396)..(1396)
<223> n equals a,t,g, or c
<220>
<221> misc feature
\langle 222 \rangle (155\overline{1})...(1551)
<223> n equals a,t,g, or c
<400> 141
ggcacgagct gggcagatgc aaaatctgga gagcgcgagg gccgggcggt cagtcagcac
                                                                        60
ccagactggc agcatgaccg gtcagatacc aaggctttct aaagtcaacc ttttcactct
                                                                      120
gctcagcctc tggatggagc tctttccagc agaagcccag cggcaaaaaat ctcagaaaaa
                                                                       180
                                                                       240
tgaagaggga aagcatggac ccttaggaga taatgaagag aggaccagag tatctactga
                                                                      300
caaaagacag gattactggg agcagctaag atgcctarat gaaaggtttaccatcactgc
tggttaggaa atggattatg agaactcgaa cagagggaag gtgaaatgca accggaggaa
                                                                       360
acactctgat atgaggtttg aggccttcaa aattgctttg cagcataagc cacagtgagt
                                                                       420
caggagtacc agggagtgga tagaatgttt atttgtttaa ctgagacttt ttagttcatc
                                                                       480
                                                                       540
aattattttg aagggtagaa cactctgtgg gctctctttc tatttccttc tgggtacaat
                                                                       600
cacaaaaaaa aaatctctcc tagctgaaat tacatgcagt actagcaaag ggtctctttg
                                                                       660
ttataaactg ttcattaatt gacgaacatt tgtgtactta actatgtata aggcatctca
tcgttcaatt tcaaatacaa attaaaatat tttttcacat ttgtatcct gttatgtttt
                                                                      720
ctcttttaca aattgtctgt tcgtatcttt ttgtctctct ttaggcctta ttcttgtcaa
                                                                       780
ttcatatgtg ctctaatgaa ttgaaatatt ttctgtatat taaacattac taacctttcc
                                                                       840
tctgtcacac tgattgaaaa atgatctatt tagtttgttg ttttgtcttt aattttgtaa
                                                                       900
gctttaaaaa gttaatattg cccttcagac accatcccaa catcacataa gaattttttc
                                                                       960
atgttataaa ttctttgtgg acatatttga taactgtttt attatgagga ggaccataat
                                                                      1020
taattcaacc attcccctat tttggtcatt taggtttttg ggtttgggtt ttttgtttgt
                                                                      1080
ttaacgtctt tgcttgctat tttaaagaat gctgcacta atgtgaatgc ttgagatttc
                                                                     1140
ttctctgtat ttagaatatt ttcctagaat ggattctcag aagaattctc agtctgtgga
                                                                      1200
gaggaacatt tttaatgcat ggaagagctg gagtgaaccg aatttcanac tgccctgctg
                                                                      1260
atccagaaat aagtttgctt acggaggctt ctagttctga agatgcaaag ttagatgcca
                                                                      1320
aagcagtgga aagattgaag tcaaacagtc gggcccatgt gtgtgtctta cttcaacctt
                                                                      1380
tggtgtgtna nanggngcag tttgtagagg agacctctta caaatgtgac tttattcaaa
                                                                      1440
                                                                      1500
aaattacaaa aacattgccg gatgctaaca ctgactttta ttatgaatgt aaacaagaaa
gaataaaaga atatgaaatg ttaaaaaaaa aamaaaaaaa aaaaaaaaa naaaa
                                                                     1555
<210> 142
<211> 575
<212> DNA
<213> Homo sapiens
<400> 142
ggcacgagtg caggaattcg tgtgccggat ttggttagct gagcccaccg agaggcgcct
                                                                        60
                                                                       120
gcaggatgaa agctctctgt ctcctcctcc tccctgtcct ggggctgttg gtgtctagca
                                                                       180
agaccetgtg etceatggaa gaageeatea atgagaggat eeaggaggte geeggeteee
                                                                       240
taatatttag ggcaataagc agcattggcc tggagtgcca gagcgtcacc tccagggggg
acctggctac ttgcccccga ggcttcgccg tcaccggctg cacttgtggc tccgcctgtg
                                                                       300
gctcgtggga tgtgcgccc gagaccacat gt@ctgcca gtgcgcgggc atggactgga
                                                                      360
```

```
ccqqaqcqcq ctqctqtcqt qtqcaqccct qaqqtcqcqc gcaqcqcqtq cacaqcqcqq
                                                                 420
                                                                 480
qcqqaqqcgg ctccaggtcc ggaggggttg cgggggagct ggaaataaac ctggagatga
                                                                4<del>5</del>0
575
aaaaaaaaa aaaaaaaaaa aaaaaaaaa aaaaa
<210> 143
<211> 1532
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (141<del>2</del>)..(1412)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1433)..(1433)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1446)..(1446)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1505)..(1505)
<223> n equals a,t,g, or c
<400> 143
                                                                 60
gctggagcgg tttcattgcc tacattccgc attggaaaat agaagaggc acaatgaagg
gaaaaggccg aggcatcagc gtgtgaagac cgcaaagacg atcccgagta cagttgtgaa
                                                                 120
cagcattgct gctaggctcc tcctgcagat catctgaaat gaacctctct tattgatttt
                                                                 180
                                                                 240
tattggccta gagccaggag tactgcattc agttgacttt cagggtaaaa agaaaacagt
                                                                 300
cctggttgtt gtcatcataa acatatggac cagtgtgatg gtgaaatgag atgaggctcc
gcaatggaac tgtagccact gctttagcat ttatcacttc cttccttact ttgtcttggt
                                                                 360
atactacatg gcaaaatggg aaaggtaagg aaaatgactc ggaaaatgtg catgaaatgt
                                                                 420
                                                                480
actagggttt ttgcttggtt aaggtgccta aatgcttaggtcaaataccc tggcaatctg
                                                                 540
catgttacat gctatctgct ggcagtttct ttctgatata aaaatgaaac agtattcttg
                                                                 600
gacagaggac acagaatttc taattccagt ggggcttgtt ttgctttcag tttcttataa
ttgtacttgg agaaacagat actgatcagt gttttatatt ctaaaagaca gccaagttga
                                                                 660
ataataaaga ctttcgtttt ggcattttgt tctttttact aaacataatt aagtgtttaa
                                                                 720
                                                                 780
taagetteet tgtacegagt gttgcataaa acaettaaaa ggacacaatt agtgeetteg
                                                                 840
tgagatttac atgctaatta tgctaaygat tgggtgctat gtagttaatg atttaaactg
catgcattga cagattactc cttaggcaaa agt&ttaag aagggataag tagaaattct
                                                                900
gattggaata ttaaaacatt ttttaaaaaat taattatgkt tagactgktg aaccgkgtta
                                                                 960
                                                                1020
tataatttta ggataawgga ttwatttgct ttttttttt ttaagagaaa ctacttgaag
                                                                1008
atgatgagaa gaaagatgga aatgttgagg tggttgcata tttggtttgt tagaatatct
                                                                1140
                                                                1200
gtcatcacct gggctwtttg aagctgctgt tgctgatgtt gttttattga ctcatgaaga
                                                                1260
caactgaaaa gattgctttg taaccttatt tttttctgat gtgtgtttac atccatgtct
                                                               1320
atatatacat attgcatatg tatatatctg tatgtgcatg tatatgttaa aaatctgata
1380
                                                                1440
cccggtaccc aattcgccct atagtgagtc gnattacaat tcactggccg cgntttacaa
                                                               1500
cgtcgngact gggaaaaccc tggcgttacc caacttaatc gccttgcagc acatcccct
                                                                1532
ttcgncagct ggcgtaatag cgaagaggcc cg
```

```
<210> 144
<211> 1559
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1445)..(1445)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1551)..(1551)
<223> n equals a,t,g, or c
<400> 144
                                                                     60
atccagcagt ggggagacag cgtgctgggc aggcgctgcc gagaccttct cctgcagctc
tacctacage ggeeggaget gegggtgeee gtgeetgagg teetaetgea eagegaaggg
                                                                    120
gctgccagca gcagcgtctg caagctggac ggactcatcc accgcttcatcacgctcctt
                                                                   180
                                                                    240
gcqgacacca gcgactcccg ggcgttggag aaccgagggg cggatgccag catggcctgc
cggaagctgg cggtggcgca cccgctgctg ctgctcaggc acctgcccat gatcgcggcg
                                                                    300
ctcctgcacg gccgcaccca cctcaacttc caggagttcc ggcagcagaa ccacctgagc
                                                                    360
tgcttcctgc acgtgctggg cctgctggag ctgctgcagc cgcacgtgtt ccgcagcgag
                                                                    420
caccaggggg cgctgtggga ctgccttctg tccttcatcc gcctgctgct gaattacagg
                                                                    480
                                                                    540
aaqtcctccc qccatctqqc tqccttcatc aacaagtttg tqcagttcat ccataagtac
                                                                    600
attacctaca atgccccage agecatetee tteetgeaga ageageega eeegeteeae
                                                                    660
gacctgtcct tcgacaacag tgacctggtg atgctgaaat ccctccttgc agggctcagc
ctgcccagca gggacgacag gaccgaccga ggcctggacg aagagggcga ggaggagagc
                                                                    720
                                                                    780
tcagccggct ccttgcccct ggtcagcgtc tccctgttca cccctctgac cgcggccgag
                                                                    840
atggccccct acatgaaacg gctttcccgg ggccaaacgg tggaggatct gctggaggtt
                                                                     900
ctgagtgaca tagacgagat gtcccggcgg agacccgaga tcctgagctt cttctcgacc
aacctgcagc ggctgatgag ctcggccgag gagtgttgcc gcaacctcgc cttcagcctg
                                                                     960
                                                                  1020
gccctgcgct ccatgcagaa cagccccagc attgcagcg ctttcctgcc cacgttcatg
                                                                   1080
tactgcctgg gcagccagga ctttgaggtg gtgcagacgg ccctccggaa cctgcctgag
tacgetetee tgtgccaaga geacgegget gtgctgetee accgggeett cetggtggge
                                                                   1140
                                                                   1200
atgtacqqcc agatqqaccc cagcqcqcag atctccgagg ccctgaggat cctgcatatg
                                                                   1260
1320
ccggggatcc tcgaggcaaa gcccaggaag cgtgggcgtt gctggtctgt ccgaggaggt
gagggcgccg agccetgagg ccaggcaggc ccaggagcaa tactccgagc cctggggtgg
                                                                   1380
ctccgggccg gccgctggca tcaggggccg tcagcaagc cctcattcac cttctgggcc
                                                                   1440
acagneetge geggagegge ggateeece gggeatggee tgggetggtt ttgaatgaaa
                                                                   1500
cgacctgaac tgtcaaaaaa aaaaaaaaa aaacccgrgg gggggcccgg nacccaatt
                                                                   1559
<210> 145
<211> 1021
<212> DNA
<213> Homo sapiens
<400> 145
                                                                      60
gtaattcctt aaacatacca tctgtcacag ttaatctaga tttgtaaata ggtagtaatt
tatagaattt ttaaagcgta aaatccggta atattaaaag ataggtaaac ctaggcctgg
                                                                     120
aaagctgtta tttggctaaa attgcacagg aggccatgaa cagaggcaag tgccccagag
                                                                     180
                                                                    240
actccacttt cattcctaac tgttctcaaa tbatgctca tgattgagta ttctcagtgc
                                                                     300
aactcgtaga gtttgataag taaaagttac atgcccctgt tttcctagca tgatattcac
tgttatcaaa gacaagaggc agaccattca ttcattctca aaacactgaa tgccattctg
                                                                     360
tgcctagtgc tatacaaggc atgggagatt cagtgtgaat aagtctttgc tctccaccta
                                                                   420
```

```
acaagggaca gttttaatta tagattgtct tcctattaag tatgagtttt agtaggcatt
                                                                    480
aaaaatcgta attagtttga taatatgaga cccaacccta acttgccaga agagtaatca
                                                                    540
gttcatgaac cattgatatt tcctgtatat ttcatgaatg tgacttcagt cattctagtg
                                                                    600
                                                                    660
ttaatactgt ggaatgtcat tggtgtagca acgtgggttc accaaaacac ctttttatac
aaaagacaga tgygtgaatt aaagagatta aaggatagag tattctgttt ctttgttttg
                                                                    720
atttggcttt taggtattaa aataaggccc agatcactaa aaattagtaa cagagggaga
                                                                    780
cctctaatag atttaaagtc agttaattct ctctgaaatt tgatgttttc ttctataæg
                                                                   840
aataactcta aaataggcat cttcccagga ctttccattc tcaggaaaag acctagttac
                                                                    900
gtataaaaaa taacttctac tgctttatgt agtcatatag gtctgcctaa aataagaatt
                                                                    960
tgtatttaat aaataccaaa attttcaaat ggtaaaaaaa aaaaaaaaa aaaggggggg
                                                                   1020
                                                                   1021
<210> 146
<211> 1024
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)..(5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (14)..(14)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (32)..(32)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (713)..(713)
<223> n equals a,t,g, or c
<400> 146
gtggntcccc cggntggcca ggattcggca cngggcgctg gccgccttcc agctgctcaa
                                                                     60
cctgactggg caacgtgggg ctcttcctgc gctcggatcc cagcatccgt ggcgtgatgc
                                                                    120
tggccggccg cggtctgggc cagggctggg cttactgcta ccaatgccaa agccaggtgc
                                                                    180
cgccacgcag cggacactgc tctgcctgcc gcgtctgcat cctgcgtcgg gaccaccact
                                                                    240
geogmetget gggeogetge gtgggetteg geaactaceg geoettetg tgeetgetge
                                                                   300
ttcatgccgc cggcgtcctg ctccacgtct ctgtgctgct gggccctgca ctgtcggccc
                                                                    360
tgctgcgagc ccacacgccc ctccacatgg ctgccctcct cctgcttccc tggctcatgt
                                                                    420
tgctcacagg cagagtgtct ctggcacagt ttgccttggc cttcgtgacg gacacgtgcg
                                                                    480
tggcgggtgc gctgctgtgc ggggctkggc tgctcttcca tgggatgctg ctgctgcggg
                                                                    540
gccagaccac atgggagtgg gctcggggcc agcactccta tgacctgggt ccctgccaca
                                                                    600
acctgcaggc agccctgggg ccccgctggg ccctcgtctg gctctggccc ttcctggcct
                                                                    660
ccccattgcc tggggatggg atcaccttcc agaccacagc agtgtggga canacagcct
                                                                   720
cctgactcca ggaagagcca gagctgtgca gggaggaagg ggtgagaggg gggcccccac
                                                                    780
acctagactc agtaaggaag tcgggttgga ccttaacatc tgcattggac aactccaccc
                                                                    840
cttccttggc cttgcccctg cccgcctaca ctcctacgtg tccagggctt gggccgtgac
                                                                    900
ttaggcagag gagtgcagag gagggtctgg caggggctgc tcaggccgcc tagctgcccc
                                                                    960
1020
cgct
                                                                   1024
```

```
<210> 147
<211> 1231
<212> DNA
<213> Homo sapiens
<400> 147
ggcacgagtg aatgtcgagg agttccagga tctctggcct cagttgtcct tggttattga
tgggggacaa attggggatg gccagagccc cgagtgtcgc cttggctcaa ctgtggttga
                                                                      120
tttgtctgtg cccggaaagt ttggcatcat tcgtccaggc tgtgccctgg aaagtactac
                                                                      180
agccatecte caacagaagt acggactget ecceteacat gegteetace tgtgaaacte
                                                                      240
tgggaagcag gaaggcccaa gacctggtgc tggatactat gtgtctgtcc actgacqact
                                                                      300
gtcaaggcct catttgcaga ggccaccgga gctagggcac tagcctgact tttaaggcag
                                                                      360
tgtgtctttc tgagcactgt agaccaagcc cttggggctg ctggtttagc cttgcacctg
                                                                      420
gggaaaggat gtatttattt gtattttcat atatcagcca aaagctgaat ggaaaagtta
                                                                      480
agaacattcc taggtggcct tattctaata agtttcttct gtctgttttg tttttcaatt
                                                                      540
gaaaagtaat taaataacag attagaatct agtgagagcc tcctctctgg tgggtggtgg
                                                                      600
catttaaggt caaaccagcc agaagtgctg gtgctgttta aaaagtctca ggtggctgcg
                                                                      660
tqtqqtqqct catqcctgta atcccaacat tctqqqaqqc ccaqqcqqqa gaactqcttq
                                                                      720
agccccagga gttcagaatc agcctgggca acatagcaat actccgtctc ataaaaatta
                                                                      780
ataaataaaa agtctcaggt gaccaaaggctcctgaagct agaaccaggt ttggataaag
                                                                      840
attgaagage cacaggecac tettecetet gagecattgg geetagtggt gteatgtatt
                                                                      900
gtaattgctc gcagggagag cagtcttttt ggtgtaatag tgggatgtct gcttagttgg
                                                                      960
caggggttca gtccaaatgg aagaatattg ggaaataaac ctccactatc ctttatagcc 1020
agggactttt ttcctattta ttcataaaat aaattatagt taattatacc cataacacct
                                                                     1080
ttatttaaat ccagtgttct ccgcagcctt ttgtctattt atatgtgtac caagtgttaa
                                                                     1140
acataattat tattgggcat ttgaactttg tttttcttta aagaaatgct gctattaaac
                                                                     1200
atatttgtaa atggaaaaaa aaaaæaaaa a
                                                                     1231
<210> 148
<211> 1223
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1204)..(1204)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1206)..(1206)
<223> n equals a,t,g, or c
<400> 148
gcttagctcg aaattaaccc tcactaaagg gaacaaaagc tggagctcca ccgcggtggc
                                                                       60
ggccgctcta gaactagtgg atcccccggg ctgywkgaat tcggcacgag ctgctgtctg
                                                                      120
tgcttcggga tcctgccctc cagaagtcct ccaaggcttg gtacttgctg cgtgtccagg
                                                                      180
teetgeaget ggtggeaget tacettagee teeegteaaa caacetetea caeteeetgt
                                                                      240
gggagcagct ctgtgcccaa ggctggcaga cacctgagat agctctcata gactcccata
                                                                      300
agctecteeg aagcateate etectgetga tgggeagtga eattetetea aeteagaaag
                                                                      360
cagctgtgga gacatcgttt ttggactatg gtgaaaatct ggtacaaaa tggcaggttc
                                                                     420
tttcagaggt gctgagctgc tcagagaagc tggtctgcca cctgggccgc ctgggtagtg
                                                                      480
tgagtgaagc caaggcettt tgettggagg ceetaaaaet tacaacaaag etgeagatae
                                                                      540
cacgccagtg tgccctgttc ctggtgctga agggcgagct ggagctggcc cgcaatgaca
                                                                      600
ttgatctctg tcagtcggac ctgcagcagg ttctgttctt gcttgagtct tgcacagagt
                                                                      660
                                                                      720
ttggtggggt gactcagcac ctggactctg tgaagaaggt ccacctgcag aaggggaagc
agcaggccca ggtcccctgt cctccacagc tcccagagga ggagctcttc ctaagaggcc
                                                                      780
```

```
ctgctctaga gctggtgcca ctgtggccaa ggagcctggcccatagcac cttctacaaa
                                                                     840
ctcctcccca gtcttgaaaa ccaagcccca gcccataccc aacttcctgt cccattcacc
                                                                      900
cacctgtgac tgctcgctct gcgccagccc tgtcctcaca gcagtctgtc tgcgctgggt
                                                                      960
attggtcacg gcaggggtga ggctggccat gggccaccaa gcccagggtc tggatctgct
                                                                     1020
gcaggtcgtg ctgaagggct gtcctgaagc cgctgagcgc ctcacccaag ctctccaagc
                                                                     1080
ttccctgaat cataaaacac cccctcctt ggttccaagc ctcttggatg agatttggct
                                                                     1140
aagcatacac actgttgcac tggagggcct gaaccagcca tcaaacgaga gcctgcagaa
                                                                     1200
ggtncncagt aaggctgaag ttt
                                                                    1223
<210> 149
<211> 1238
<212> DNA
<213> Homo sapiens
<400> 149
ccctcacatc agggaaaatg accttcactg ctgttaacag taatgkgtcc ctttcatttt
                                                                       60
ctggatcaag ccttctcagc ggtgggtctg gatgtgggta aactaaggta aaggggatga
                                                                      120
tattccacaa actaattatg cacacagaaa atctgtggag cctatcagac cccaagtgtc
                                                                      180
ttgaaatgtt tgtagaaacc cactaaaatg ccccttctct gggtgtgggc ccttattgca
                                                                      240
gctgtctcac agcctgagct gtggtacaga gaaatggggg ttctcctttt attttcattt
                                                                      300
tttttcccca atggcagctt ttctcccgtt gtttacctt cctatttccc aaacagttcc
                                                                     360
tettattttg tettttgeae eagtttetgg aggeeettgt eattteaaaa aggatagtet
                                                                      420
cttttcttac tctggcaaac ctgtgagtga ttccacaaag atacagtatt acttagctaw
                                                                      480
ctgaattatg atagaaaagg tcctagttag gttcctatat aaagcatttg gaagatgacc
                                                                      504
ttgttgccct tgaaacttga aaatagggat tctggggtga ggatacaaag acattgtctt
                                                                      600
gcatatccat aagcaggtct tagagcatta ttccaaactc tagctgtttc agtagttcta
                                                                      660
tgaggattgc aagtcatagg tgtgtgtggc atatcagtcc atctccctca tctccattct
                                                                      720
cagtttcttc cccacaaaat ttggaatca agcttttatg acgtttgcca attgcagaac
                                                                     780
ttcttcagct aaggttaatt tgacgctatg ataaaactga gagatgtcaa aaagcctctt
                                                                      840
agaaatttta atcttgaaag acttttcagg gtatctcatt ttttaggtgg gggtggcagg
                                                                      900
tgtatttctt ttttaacaaa taaaaggcat ttaagtaaaa ctaaaatgaa aaaagtaggc
                                                                     960
cttctgacat tgtgtacttg gtggttctgt ccctctgcct gtaacaaatc tcatttttgt
                                                                     1020
taccaagaac tgtatgaaag aagtaaatcc accccgattc tgtatgatta attccatctg
                                                                     1080
tgtttgtcat ttctgactgg aaaacttctt actccatacc ttgttcgata tggaggacaa
                                                                     1140
ataattggat tgtctgataa gtcgccaat aaactatcca gaaatagcaa gtgtaaaaaa
                                                                    1200
aaaaaaaaa aaaaaaaaa gggcggcc
                                                                     1238
<210> 150
<211> 1189
<212> DNA
<213> Homo sapiens
<400> 150
gegteegetg ggetggaaca geacagaace cacagggetg cegteeacae teteceggt
                                                                      60
agagteetgg gaccacatgg ggacgetgee atggettett geettettea ttetgggtet
                                                                      120
ccaggettgg gatactecca ceategtete eegcaaggag tggggggeaa gaeegetege
                                                                      180
etgeagggee etgetgaeee tgeetgtgge etacateate acagaceage teecagggat
                                                                      240
gcagtgccag cagcagagcg tttgcagcca gatgctgcgg gggttgcagt cccattccgt
                                                                     300
ctacaccata ggctggtgcg acgtggcgta caacttcctg gttggggatg atggcagggt
                                                                      360
gtatgaaggt gttggctgga acatccaagg cttgcacacc cagggctaca acaacatttc
                                                                      420
cctgggcatc gccttctttg gcaataagat aagcagcagt cccagccctg ctgcttatc
                                                                    480
agctgcagag ggtctgatct cctatgccat ccagaagggt cacctgtcgc ccaggtatat
                                                                      540
tcagccactt cttctgaaag aagagacctg cctggaccct caacatccag tgatgcccag
                                                                      600
gaaggtttgc cccaacatca tcaaacgatc tgcttgggaa gccagagaga cacactgccc
                                                                      660
taaaatgaac eteceageea aatatgteat eateateeae acegetggea caagetgeae
                                                                     720
tgtatccaca gactgccaga ctgtcgtccg aaacatacag tcctttcaca tggacacacg
                                                                      780
gaacttttgt gacattggat atcaataagg ccaggcgtgg cggcgattac gtctgtaatc
                                                                      840
```

```
ccaggacttt gggaggccaa ggcgggcaga tcacttcagg ccaggaatc aagagcagcc
                                                                 900
tggccaatat ggcgaaactc tgtctctact gaaaacaaac aaacaaacaa acaaacaaac
                                                                  960
                                                                 1020
aaagaaacaa caaaaattag ccgggtgtgg tggcacacgc ctgtagtccc agctactcag
                                                                 1080
qaqqctqaqq cataaqaatt gcttgaaccc tggaggcgga ggttgcagtg agctgagatt
                                                                1140
qqqccaccgc actccagtct gggagacaga gtgagactgt ctcaaaacaa caacaaaaaa
                                                                 1189
<210> 151
<211> 496
<212> DNA
<213> Homo sapiens
<400> 151
tcgacccacg cgtccgaact gacacaatga aactgtcagg catgttttg ctcctctctc
                                                                  60
                                                                  120
tggctctttt ctgcttttta acaggtgtct tcagtcaggg aggacaggtt gactgtggtg
                                                                  180
agttccagga caccaaggtc tactgcactc gggaatctaa cccacactgt ggctctgatg
gccagacata tggcaataaa tgtgccttct gtaaggccat agtgaaaagt ggtggaaaga
                                                                  240
ttagcctaaa gcatcctgga aaatgctgag ttaaagccaa tgtttcttgg tgacttgcca
                                                                  300
gcttttgcag ccttctttc tcacttctgc ttatactttt gctggtggat tcctttaatt
                                                                  360
                                                                  420
cataaaqaca tacctactct gcctgggtct tgaggagttc aatgtatgtc tatttctctt
480
                                                                  496
aaaaaaaaa aaaaaa
<210> 152
<211> 3153
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2584)..(2584)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2590)..(2590)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (3153)..(3153)
<223> n equals a,t,g, or c
<400> 152
nggccgtggg tgtacgcggc gcagcgcggc agtcctgatg gcccggcatg ggttaccgct
                                                                   60
                                                                  120
gctgccctg ctgtcgctcc tggtcggcgc gtggctcaag ctaggaaatg gacaggctac
                                                                  180
tagcatggtc caactgcagg gtgggagatt cctgatggga acaaattctc cagacagcag
agatggtgaa gggcctgtgc gggaggcgac agtgaaaccc tttgccatcg acatatttcc
                                                                 240
                                                                  300
tgtcaccaac aaagatttca gggattttgt cagggagaaa aagtatcgga cagaagctga
                                                                  360
qatqtttqqa tqqaqctttq tctttgagga ctttgtctct gatgagctga gaaacaaagc
cacccagcca atgaagtctg tactctggtg gcttccagtg gaaaaggcat tttggaggca
                                                                  420
gcctgcaggt cctggctctg gc&ccgaga gagactggag cacccagtgt tacacgtgag
                                                                  480
```

```
ctggaatgac gcccgtgcct actgtgcttg gcggggaaaa cgactgccca cggaggaaga
gtgggagttt gccgcccgag ggggcttgaa gggtcaagtt tacccatggg ggaactggtt
                                                                      600
                                                                     660
ccagccaaac cgcaccaacc tgtggcaggg aaagttcccc aagggagaca aagtgagga
tggcttccat ggagtctccc cagtgaatgc tttccccgcc cagaacaact acgggctcta
                                                                      720
                                                                      780
tgacctcctg gggaacgtgt gggagtggac agcatcaccg taccaggctg ctgagcagga
                                                                      840
catgcgcgtc ctccgggggg catcctggat cgacacagct gatggctctg ccaatcaccg
                                                                     900
ggcccgggtc accaccagga tgggcaacac tccagattca gcctcagaca acctcggttt
                                                                      960
ccgctgtgct gcagacgcag gccggccgcc aggggagctg taagcagccg ggtggtgaca
aggagaaaag ccttctaggg tcactgtcat tccctggcca tgttgcaaac agcgcaattc
                                                                     1020
caagetegag agetteagee teaggaaaga aetteeeett eeetgtete cateeetetg
                                                                    1080
tggcaggcgc ctctcaccag ggcaggagag gactcagcct cctgtgtttt ggagaagggg
                                                                     1140
cccaatgtgt gttgacgatg gctgggggcc aggtgtttct gttagaggcc aagtattatt
                                                                     1200
                                                                     1260
gacacaggat tgcaaacaca caaacaattg gaacagagca ctctgaaagg ccattttta
                                                                     1320
agcattttaa aatctattct ctccccttt ctccctggat gattcaggaa gctgacattg
                                                                     1380
tttcctcaag gcagaatttt cctggttctg ttttctcagc cagttgctgt ggaaggagaa
                                                                     1440
tgctttcttt gtggcctcat ctgtggtttc gtgtccctct gaaggaaact agtttccact
gtgtaacagg cagacatgta actatttaaa gcacagttca gtctaaaag ggtctgggag
                                                                    1500
                                                                     1560
aaccagatga tgtactaggt gaagcattgc attgtgggaa tcacaaagca aatagtactc
cagaaagaca aatatcagaa gcttcctatt ctttttttt tttttttt tttgagacag
                                                                     1620
ggtctttctc tgttgcccag gctagagtgc actggtgatc acggctcact ctagccttga
                                                                     1680
attectggge ccaageaatt eteceaecte ageeteetga gtagetggga etacaagtgt
                                                                     1740
gcaccaccat gcctggctaa ttttttgaat ttttgtagtg atgggatctc gctctgttgc
                                                                     1800
                                                                     1860
ccaqggtggt ctcgaactcc tggcctcaag cgatcctccc acctcgacct cccaaagtgc
tgggattaca ggtgtgagcc acctcgcctg ggccccctc tccatatgcc tccaaaaaca
                                                                    1920
tgtccctgga gagtagcctg ctcccacact gtcactggat gtcatggggc caataaaatc
                                                                     1980
                                                                     2040
tcctgcaatt gtgtatctca gacatttgtg tctttgatcc tcaccctgtg accctaaagg
                                                                     2100
gaagaaagcc tgagtgtcaa gtaactctgg gcctccccta aagagaaatg gagatggtgg
                                                                     2160
ctcatctagg aagtagagga gcagggggtt cctggttctc aggccacgtg tgatctctgc
ccacccaggg cctgccccag cctgcaggta ttgctgtgtg gtgggaacac ccacttccct
                                                                     2220
                                                                     2280
tgtgcacagc ctttgagagg ggatcgtggc ctcagttcca ggggttcctg gccagggcca
                                                                    2340
agtgctcctt ctgcagaggc ctgcacgcat ctacccctt tgacttgtat ttccatggct
                                                                     2400
tecectecce acetgeece tagecetece tgaetggeea geceeteagt agtecteete
ggccagggag aggagcacgg ccttgggtgt gttctcgaaa agggctgccc ggttctgctg
                                                                     2460
ctgccccttc ttcacccagt ggccatagat tcggaaagcg taggcgtcga tgagccggcg
                                                                     5220
                                                                     2580
cagaggccgg agggcatagg ggtctcggat gacgatctcc cgggtcacag gcttcacccg
                                                                     2640
gcgntactgn tagtagatcc gcactgaagc cagcacggtc agagcgatca ccttgaactt
                                                                     2700
ccccqqqqq ctgaaqtqcc gcacttcctc taccaaqtac tqctqqaaqa aggqqtqtqc
                                                                     2760
caaggcctct tccgctgtgt agcggttctg gggttgcacc accaggaatc gggagaccag
                                                                     2820
gtccttcacg gtgtccgagt aatcatccca ctcgggcgag ccaaactggt agttgccgct
catgatcatc ctcagcatca gcatctgctt ccggtgccag aagggcgggg agccggccag
                                                                     2880
cagcgtgtac atgatgacgc cagtgctcca catgtccacc tctttcccgt agcccggtgg
                                                                    2940
                                                                     3000
gtcctcattc atggagcact cgataatctc aggggccagg taactggggg tcccgcagac
                                                                     3060
ctctcgcagc ctctctcccg gctccagctg gcaggaaaag ccaaagtctg tgagcttgat
                                                                     3120
gttcatgttg tcatccaaga gaatgttctc gggcttcagg tcccggtgca cgatgttgag
                                                                     3153
tttgtgcaag gtgcagatca cctccagcag agn
<210> 153
<211> 686
<212> DNA
<213> Homo sapiens
<400> 153
tcgacccacg cgtccgaact gccaaaagct ggtgattctg ggacaggcct tcactttgga
                                                                       60
                                                                     120
gccacgggat ggggtggggg agccccatgg gcctgggaag gagggtgctg tggaggggc
                                                                      180
tgcagggctg accagcaggc agcctcatct ggtcgggggc gggggcggca ggagcagaag
                                                                      240
cggggtctcc gtccttggga ctgtcctggt tggccacggg ccctgaggat gcacggtgcc
                                                                      300
tggggctcct gtgccggtgg gcgggggca tgctggcctc tgagcgatca ggcgaggcca
```

540

```
gcgagggtgt gcttgcaaat tcaagcaata agaggggggt tcctgggggc ttccagccca
                                                                   360
ggctagaagc ccccatggct tctggcagct ggacatcagc cccaggtatt ggggtgattt
                                                                   420
480
gtgggactca aggcttgacc gactcctagt ggacctgatg tgaaattcct gtaaacaaa
                                                                  540
caccactttt caatggtttg ctaggagtat ttctgtattg aaagtttcta attatgcttt
                                                                   600
660
aaaaaaaaa aaaaaaa aaaaaa
                                                                   686
<210> 154
<211> 2496
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2340)..(2340)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2373)..(2373)
<223> n equals a,t,g, or c
<400> 154
ggccttacct actagcggaa tcgactgaag agacgcctgc cgtgcggga ggtaggaagc
                                                                   60
tcgatcccca aagaaaagag cgagtgggca ggcagctgcg agacagaacc ggagtgtgca
                                                                   120
gggtccctag aggccggttc ctggtctgtg ctgctctcct ggaagccatg gtacaggcag
                                                                   180
agctcagggc gatccccagg tgagggcagc ggctctgcct gggattccac cgcagtacaa
                                                                   240
ccgggtagat gcggggtgga gaagaaagga tgttgcctgc actgctcgcc aatagcaccc
                                                                   300
tgagaggcta catttgcaga agcagcagca gcagaagaca cagcgccggt ccaggaggcg
                                                                   360
gctcgagctg ttcgtaaagt cgcccgacag ctttttctcc gtagtatgcg agttgacaaa
                                                                   420
acagccagag aacagggctc cccattacaa tcttttgag atcttttccc ttgctaaccg
                                                                  480
gatctgattt gtgcgaaaac atgccttgca cttgtacctg gaggaactgg agacagtgga
                                                                   540
ttcgaccttt agtagcggtc atctacctgg tgtcaatagt ggttgcggtt cccctatgcg
                                                                   600
tgtgggaatt acagaaactg gaggttggaa tacacccaa ggcttggttt attgctggaa
                                                                   660
tctttttgct gttgactatt cctatatcac tgtgggtgat attgcaacac ttagtgcatt
                                                                   720
atacacaacc tgaactacaa aaaccaataa taaggattet ttggatggta cetatttaca
                                                                   780
gtttagatag ttggatagct ttgaaatatc ccggaattgc aatatatgtg gatacctgca
                                                                   840
gagaatgcta tgaagcttat gtaatttaca ætttatggg attccttacc aattatctaa
                                                                  900
ctaaccggta tccaaatctg gtattaatcc ttgaagccaa agatcaacag aaacatttcc
                                                                   960
ctcctttatg ttgctgtcca ccatgggcta tgggagaagt attgctgttt aggtgcaaac
                                                                  1020
taggtgtatt acagtacaca gttgtcagac ctttcaccac catcgttgct ttaatctgtg
                                                                1080
agctgcttgg tatatatgac gaagggaact ttagcttttc aaatgcttgg acttatttgg
                                                                  1140
ttataataaa caacatgtca cagttgtttg ccatgtattg tctcctgctc ttttataaag
                                                                  1200
tactaaaaga agaactgagc ccaatccaac ctgttggcaa atttctttgt gtaaagctgg
                                                                  1260
tggtttttgt ttctttttgg caagcægtag ttattgcttt gttggtaaaa gttggcgtta
                                                                 1320
tttctgaaaa gcatacgtgg gaatggcaaa ctgtagaagc tgtggccacc ggactccagg
                                                                  1380
attttattat ctgtattgag atgttcctcg ctgccattgc tcatcattac acattctcat
                                                                  1440
ataaaccata tgtccaagaa gcagaagagg gctcatgctt tgattccttt cttgccagt
                                                                1500
gggatgtctc agatattaga gatgatattt ctgaacaagt aaggcatgtt ggacggacag
                                                                  1560
tcaggggaca tcccaggaaa aaattgtttc ccgaggatca agatcaaaat gaacatacaa
                                                                  1620
gtttattatc atcatcatca caagatgcaa tttccattgc ttcttctatg ccaccttcac
                                                                  1680
ccatgggtca ctaccaaggg tttggacaca ctgtgactcc ccagactaca cctaccacag
                                                                 1740
ctaagatatc tgatgaaatc cttagtgata ctataggaga gaaaaaagaa ccttcagata
                                                                  1800
aatccgtgga ttcctgaaca gtatggaaaa gcaaactgtg caactactac attatatcat
                                                                  1860
tacctggtat cccatggatt ttgtgcttgg gacagaccat aaatgatgga aatgtcaac
                                                                 1920
acaaaaatag ctgaaagcca ggtacaacta ctgcatttat atatgtaagt tttgtatatc
                                                                  1980
```

```
aaaaataatt ggtctaaatt tcctagactt agacttgatt tcttaacatt agggtatcgc
                                                                     2040
                                                                     2100
atactcaaat ggtagacaat gaccccaact aaatcttcct gatgttacac tgctttatca
agaggatgga ctttttttt ttgaggcaga cagagtcttg gctctgtcac ccaggctgga
                                                                     2160
                                                                     2220
gtgcagtggc gcaatctcgg gtcactgcaa gctctgcctc ccaagttcat gccattctcc
                                                                     2280
tgcctcagcc tcccaagtag ctgcgactac aagcacctgc caccatgccc agctaatttt
                                                                    2340
ttttttcagt agagacaggg tctcaccatg ttagccacga tgctctgat ctgaccttgn
                                                                     2400
gatcccgcga cctcggcctt ccaaagtgct ggnaatacag gcgtgagcca ctgggccttg
                                                                     2460
ccaagattgg gcacttttta acatcagaac ttcctatcac tgctgcattg agttgctccg
catttattag aagcattatg cctgtacgga ttgggg
                                                                     2496
<210> 155
<211> 1001
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (919)..(919)
<223> n equals a,t,g, or c
<400> 155
cgcgctggaa ccctgtggcg gcggccatgg ccatatggcg ctgcccgcct ggctgcagcc
                                                                        60
aggtatagga agaatgcgta tcttttcatc tattacttaa tcagttctg tggccactct
                                                                     120
tggatattta caaatatgac agtcagattc ttttcatttg gaaaaggtaa aactccgaaa
                                                                      180
                                                                      240
cagttttttt atttttaact tttaatcctt gttttcacct catcctgctt atattaaatt
tctacacacc tcaaccttct accacgggat acagattcaa tggttgacac tttttatgct
                                                                      300
attggacttg tgatgcgact ttgccaatcc gtatctctcc tggaactgct gcacatatat
                                                                      360
gttggcattg agtcaaacca tcttctccca aggtttttgc agctcacaga aagaataatc
                                                                      420
                                                                      480
atcctttttg tggtgatcac cagtcaagag gaagtccaag agaaatatgt ggtgtgtgtt
                                                                      540
ttattcgtct tttggaatct attggatatg gttaggaca cttatagcat gttatcagtc
                                                                      600
ataggaatat cctatgctgt cttgacatgg ctcagtcaaa cactatggat gccaatttat
                                                                      660
cctttgtgtg ttcttgctga agcatttgcc atctatcaat cgctgcctta ttttgaatca
                                                                      720
tttggcactt attccaccaa gctgcccttt gacttatcca tctatttccc atatgtgctg
aaaatatatc tcatgatgct ctttataggt atgtatttta cctacagtca tctatactca
                                                                      780
gaaagaagag acatcctcgg aatctttccc attaaaaaaa agaagatgtg aagtacagca
                                                                      840
                                                                      900
ttccagtgtg acacgagaaa agacaggctg tggattcagt gcagtaaata aaacacagga
                                                                      960
agtattctgg tggaaaaana aaaaaaaaaa maaaaaaar aaraaaaaaa aawaaaaaaa
aaaaaaaaa aaaaaaaaa aaaaaaaaaa a
                                                                     1001
<210> 156
<211> 11.42
<212> DNA
<213> Homo sapiens
<400> 156
gaagaagtga cacttcttgg tcagaatgtt aatagttttc gggacaattc ggaggtccag
                                                                        60
ttcaacagtg cagtgcctac caatctcagt cgtggcttta ccaccaacta taaaaccaag
                                                                      120
                                                                      180
caaggaggac ttcgttttgc tcatcttctg gatcaggtct ccagagtaga tcctgaaatg
aggatccgtt ttacctctcc ccaccccaag gattttcctg atgaggttct gcagctgatt
                                                                      240
catgagagag ataacatctg taaacagatccacctgccag cccagagtgg aagcagccgt
                                                                      300
gtgttggagg ccatgcggag gggatattca agagaagctt atgtggagtt agttcaccat
                                                                      360
attagagaat ctattccagg tgtgagcctc agcagcgatt tcattgctgg cttttgtggt
                                                                      420
                                                                     480
gagacggagg aagatcacgt ccagacagtc tctttgctcc gggaagttca gtacaacatg
                                                                      540
ggcttcctct ttgcctacag catgagacag aagacacggg catatcatag gctgaaggat
                                                                      600
gatgtcccgg aagaggtaaa attaaggcgt ttggaggaac tcatcactat cttccgagaa
                                                                      660
gaagcaacaa aagccaatca gacctctgtg ggctgtaccc agttggtgct agtggaaggg
\verb|ctcagtaaac| gctctgccac| tgac<math>\texttt{tgtgt} ggcaggaatg atggaaacct taaggtgatc|
                                                                      720
```

```
780
ttccctqatq cagaqatgga ggatgtcaat aaccctgggc tcagggtcag agcccagcct
                                                                    840
qqqqactatg tgctggtgaa gatcacctca gccagttctc agacacttag gggacatgtt
                                                                   900
ctctqcagga ccactctgag ggactcttct gcatattgct gacctgagag gatggctca
gagctgactt gggcaatcct ccccaacagg aaggggagac attgcctgcc actgaggaaa
                                                                    960
                                                                   1020
caggtcatga aggtggagat aagctgcaag gggcgaagca actttatgtc agtggaaaac
                                                                   1080
gtgtctcttt aaagctgcta tgtgaacagc ttttacagtc attaaattta cctaaactaa
1140
                                                                   1142
ct
<210> 157
<211> 2238
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (12)..(12)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (45)..(45)
<223> n equals a,t,g, or c
<400> 157
                                                                     60
tgtccttqtt qncqcqgctg aagtacgccg tgggccactt cctcnaacga cctgtgcgcg
                                                                    120
tocatgtggt toacctacct getgetetac etgeactegg tgegegeeta eageteeege
                                                                    180
ggcgcggggc tgctgctgct gctgggccag gtggccgacg ggctgtgcac accgctcgtg
ggctacgagg ccgaccgcgc cgccagctgc tgcgcccgct acggcccgcg caaggcctgg
                                                                    240
                                                                     300
cacctggtcg gcaccgtctg cgtcctgctg tccttcccct tcatcttcag cccctgcctg
                                                                   360
ggctgtgggg cggccacgcc cgagtgggct gccctcctct actacggcc gttcatcgtg
atcttccagt ttggctgggc ctccacacag atctcccacc tcagcctcat cccggagctc
                                                                     420
gtcaccaacg accatgagaa ggtggagctc acggcactca ggtatgcgtt caccgtggtg
                                                                     480
                                                                    540
gccaacatca ccgtctacgg cgccgcctgg ctcctgctgc acctgcaggg ctcgtcgcgg
                                                                    600
qtqqaqccca ccaagacat cagcatcagc gaccagctgg ggggccagga cgtgcccgtg
                                                                     660
ttccggaacc tgtccctgct ggtggtgggt gtcggcgccg tgttctcact gctattccac
                                                                    720
ctgggcaccc gggagaggcg ccggccgcat gcggaggagc caggcgagca caccccctg
                                                                    780
ttgqccctg ccacggccca gccctgctg ctctggaagc atggctccg ggagccggct
ttctaccagg tgggcatact gtacatgacc accaggctca tcgtgaacct gtcccagacc
                                                                     840
                                                                     900
tacatggcca tgtacctcac ctactcgctc cacctgccca agaagttcat cgcgaccatt
cccctggtga tgtacctcag cggcttcttg tcctccttcc tcatgaagcc catcaacaag
                                                                     960
                                                                   1020
tgcattggga ggaacatgac ctacttctca ggcctcctgg tgatcctggc ctttgccgcc
tgggtggcgc tggcggaggg actgggtgtg gccgtgtacg cagcggctgt gctgctgggt
                                                                   1080
gctggctgtg ccaccatcct cgtcacctcg ctggccatga cggccgacct catcggtccc
                                                                   1140
cacacgaaca gcggagcgtt cgtgtacggc tccatgact tcttggataa ggtggccaat
                                                                   1200
gggctggcag tcatggccat ccagagcctg caccettgcc cctcagagct ctgctgcagg
                                                                   1260
                                                                   1320
gcctgcgtga gcttttacca ctgggcgatg gtggctgtga cgggcggcgt gggcgtggcc
                                                                   1380
gctgccctgt gtctctgtag cctcctgctg tggccgaccc gcctgcgacg ctcccgaggc
ggagaacacc gaacacccag tgaaggtgag gggatcagca cggcgccgcc accgtgctgg
                                                                    1440
                                                                    1500
aacgagactc agccacaagg aggtgcgaag ctctgaccca ggccacagtg cggatgcacc
                                                                   1560
ttgaggatgt cacgctcagt gagagacacc agacacagaa gggtacgctg tgatcccact
                                                                   1620
tctatgaaat gtccaggaca gaccaatcca ægaatcagg gagaggattc gtgggtgccg
ggactgagga gggggacctg ggggtgacta ggtgacataa tggggatcag cacgggcggc
                                                                   1680
                                                                    1740
accagcacac acgtgctgga atgagaactc agccacaagg ggaggtgcga agttctgacc
                                                                  1800
caggccacag tgcggatgca cctttgagga tgtcacgctc agtgagagac accagacaca
                                                                    1860
gaagggtacg ctgtgatccc acttctatga aatgtccagg acagaccaat ccacagaatc
agggagagga ttcgtgggtg ccgggactgg ggagggggac ctgggggtga ctaggtgaca
                                                                    1920
```

```
1980
taatqqqqac aagggctgcc tttctggggt gatgagaatg ttctggaatc agaatgggat
                                                                2040
ggctgcacgg cgtggttgaa gggtadgaa ggccaccctt cagtgtacga aggggtagat
                                                                2100
2160
2220
cgggggagaa agggtataaa gggcgcgggg tcaaaggttt cgagcaccct tttttaæag
                                                                2238
agggaatagg ggcccata
<210> 158
<211> 1052
<212> DNA
<213> Homo sapiens
<400> 158
                                                                  60
acqcqtccgg ccaqccaqtc cgcccqtccg gagcccggct cgctggggca gcatggcggg
gtcgccgctg ctctgggggc cgcgggccgg gggcgtcggc cttttggtgc tgctgct
                                                                 120
                                                                 180
cggcctgttt cggccgcccc ccgcgctctg cgcgcggccg gtaaaggagc cccgcggcct
aagcgcagcg tctccgccct tggctgagac tggcgctcct cgccgcttcc ggcggtcagt
                                                                 240
gccccgaggt gaggcggcgg gggcggtgca ggacctggcg cgggcgctgg cgcattgct
                                                                300
                                                                 360
ggaggccgaa cgtcaggagc gggcgcgggc cgaggcgcag gaggctgagg atcagcaggc
                                                                 420
gcgcgtcctg gcgcagctgc tgcgcgtctg gggcgccccc cgcaactctg atccggctct
gggcctggac gacgaccccg acgcgcctgc agcgcagctc gctcgcgctc tgctccgcgc
                                                                 480
ccgccttgac cctgccgccc tagcagccca gcttgtcccc gcgcccgtcc ccgccgcggc
                                                                 540
                                                                 600
gctccgaccc cggcccccgg tctacgacga cggccccgcg ggcccggatg ctgaggaggc
                                                                 660
aggcgacgag acacccgacg tggaccccga gctgttgagg tacttgctgg gacggattct
tqcqqqaaqc qcqqactccg agggggtggc agccccgcgc cgcctccgccgtgccgccga
                                                                720
                                                                 780
ccacqatqtq gqctctgagc tgccccctga gggcgtgctg ggggcgctgc tgcgtgtgaa
                                                                 840
acgcctagag accccggcgc cccaggtgcc tgcacgccgc ctcttgccac cctgagcact
                                                                 900
gcccggatcc cgtgcaccct gggacccaga agtgcccccg ccatcccgcc accaggactg
                                                                 960
ctcccgcca gcacqtccag agcaacttac cccggccagc cagccctctc acccgaggat
                                                                1020
1052
aaaaaaaaa aaaaaaaaa aa
<210> 159
<211> 1492
<212> DNA
<213> Homo sapiens
<400> 159
                                                                  60
gccttcccac actccattcc ctgtcaagtt atggctgtcc cctcacccca gctgctccta
gagaggccct tkttacctgt gtcattcatg tttctaacaa gccaccctcc accccgtctt
                                                                 120
gtgtgcccca tgcacctgtg catctgtgct gtgtgggtgt tggtggccct tttgcgcatg
                                                                 180
                                                                 240
catggggcat ccctgccca gaccagcggg acaaggagcg ggaacggcgg ctgcaggagg
                                                                 300
cacggggccg gccaggggag gggcgcggca acacagccac tgagaccacc acgaggcaca
gccagcgggc agctgatggc tctgctgtca gcactgttac caagactgag cggctcgtcc
                                                                 360
actccaatga tggcacacgg acggcccgca ccaccacagt ggaqcgagt ttcgtgaggc
                                                                420
                                                                 480
gctcggagaa tggcagtggc agcaccatga tgcaaaccaa gaccttctcc tcttcctcct
                                                                 540
catccaagaa gatgggcagc atcttcgacc gcgargacca ggccagccca cgggccggca
                                                                 600
gcctggcggc gctcgagaaa cggcaggccg agaagaagaa agagctgatg aaggcgcaga
gtctgcccaa gacctcagcc tcccaggcgc gcaaggccat gattgaraag ctggagaagg
                                                                 660
                                                                 720
agggcgcggc cggcagccct ggcggacccc gcgcagccgt gcagcgatcc accagcttcg
                                                                 780
gggtccccaa cgccaacagc atcaagcaga tgctgctgga ctggtgtcga gccaagactc
                                                                 840
gcggctacga gcacgtcgac atccagaact tctcctccag ctggagtgat gggatggcct
tctgtgccct ggtgcacaac ttcttccctg aggccttcga ctatgggcag cttagccctc
                                                                 900
agaaccgacg ccagaacttc gaggtggcct tctcatctgc ggagacccat gcggactgcc
                                                                 960
                                                                1020
cgcagctcct ggatacagag gacatggtgc ggcttcgaga gcctgactgg aagtgcgtgt
                                                                1080
acacgtacat ccaggaattc taccgctgtc tggtccagaa ggggctggta aaaaccaaaa
agtoctaamo cotgotoggg gooccacgga tgotggtgga ctgtgtgccc ctggtggagg
                                                                1140
```

```
1200
tggacgacat gatgatcatg ggcaagaagc ctgaccccaa gtgtgtcttc acctatgtgc
                                                               1260
agtcgctcta caaccacctg cgacgccacg aadgcgcct gcgcggcaag aatgtctagc
ctgcccgccc gcatggccag ccagtggcaa gctgccgccc ccactctccg ggcaccgtct
                                                                1320
cctgcctgtg cgtccgccca ccgctgccct gtctgttgcg acaccctccc ccccacatac
                                                                1380
acacgcagcg ttttgataaa ttattggttt tcaamraaaa aaaaaaaaaa aaaaaaaaa
                                                                1440
1492
<210> 160
<211> 954
<212> DNA
<213> Homo sapiens
<400> 160
gaatteggea egageeeaca eeaaacetgt ggaegeegae eegggaeege egetggetgg
                                                                 60
ctgctggctc actcgaccgt catggagacc ctgggggccc ttctggtgct ggagtttctg
                                                                120
etectetece eggtggagge ceageaggee aeggageate geetgaagee gtggetggtg
                                                                180
ggcctggctg cggtagtcgg cttcctgttc atcgtctatt tggtcttgct ggccaaccgc
                                                                240
ctctggtgtt ccaaggccag ggctgaggac gaggaggaga ccacgttcag aatggagtcc
                                                                ന്ന
360
                                                                 420
ctggaggaaa aagagcccgg agaccatgag agagcaaaga gcacagtcat gtgaagattc
                                                                480
ctggctgcct cttccaggca gtcccccaga gatgcctctt ctgcccccta aaagcagtgc
                                                                540
                                                                 600
cctggacttg aagcccgtga aatgactcca tctgggattc agaatacagt gttctcaagt
gaagaagget tggaacccac cecaceteee teattggggg etetetggge aaacatggtt
                                                                 660
ttcatgcacc cctcttcctg agcttggtcc ctgcctggtg attcttctta tactcqqam
                                                               720
gcatccctgg ttgaggagac acccgcaatc ctccacgatc tcatggctcc acctgcttct
                                                                780
ccccactgcc tgatttcttt tctctctgcc tgatgtctac tgaacagaac ttcccctctc
                                                                840
ccatgcaccc actgccagct gagagetget teccaatgge etgeattaaa geattegtaa
                                                                900
954
<210> 161
<211> 2784
<212> DNA
<213> Homo sapiens
<400> 161
ggcacgagga actctgagca ccgtggcttc cagcatcaat gccttggcaa cagtgacctt
                                                                 60
tgaggatttt gtcaagagct gttttcctca tctctccgac aagctgagca cctggatag
                                                               120
taaaggctta tgtctcttat ttggcgtgat gtgtacctct atggctgtgg ctgcatctgt
                                                                180
catgggaggt gttgtgcagg cttccctcag cattcacggc atgtgtggag gaccaatgct
                                                                240
gggcttattc tccctgggaa tcgtgttccc ttttgtgaat tggaagggtg cactaggagg
                                                                300
tcttcttact ggaatcacct tgtcattttg ggtggccatt ggggccttca tttaccctgc
                                                                360
accageetet aagacatgge etttgeetet ateaacagae caatgtatea aateaaatgt
                                                                 420
gacagcaaca gggcctccag tactatccag cagacctgga atagctgata cctggtactc
                                                                480
gatctcctac ctttactaca gtgcagtggg ctgcttagga tgcattgttg cqgagtaat
                                                               540
catcagcctc ataacaggtc gccaaagagg tgaggatatt caaccactgt taattagacc
                                                                 600
agtttgtaat ttattttgct tttggtctaa gaagtacaaa acactatgct ggtgtggagt
                                                                660
tcagcatgac agtgggacag agcaggaaaa ccttgagaat ggcagtgccc ggaaacaggg
                                                                720
ggctgaatct gtcttæaga atggactcag gagagaaagc ctggtacatg ttccaggcta
                                                                780
tgatcctaag gacaaaagct acaacaatat ggcatttgag actacccatt tctaaggcaa
                                                                840
tacctgtatg aacgcacaca cacacgtgca atacacacac acacacaca acacacacac
                                                                900
acaaactcca catacttctt gcctacttgt tagtagatat gtatagtgc cattgctaga
                                                                960
agacagggat gtctggtgcc tatttctact tatttataac tacatgcaaa atgactatct
                                                                1020
ctcgggatat tcttagaaag actccaactt tcacagagaa aaaccaacct gctccaaatg
                                                                1080
cccttgacta cttccttctt gaataaatta gggctggatt tcattaccat tcaagaaagc
                                                               1140
gaagtetttt tgettggtgt catattaaae tteaggtttt tegttttagt agttttttaa
                                                               1200
ccatcaaaat atcttggagt ttagaggcag aacgggaaac agaaatatgc atatttaaca
                                                               1260
```

```
ctttcctgcc acgagggata aaatagagga atgacatcca cccccgacct catacctgac
                                                                     1320
atacatgtag acatatttta tgccacccat ctcccatcct &agctacaa ttggcataca
actactatta acctcccttc accaccactg tcaggtcctc ttccagtcat tcctcattag
ctgtcctgac caaacattaa aaaaaaaatt cagctaaata cagaagaaga tggtatgtct
                                                                     1500
ggctagtggg agtgattata actaaaaact ttgctccttt tgtgctgtcc atgcagtatg
                                                                     1560
tcttcttcct ttctatcact ttacaatgaa aaattgcctc agagctcaat aagaagtctg
                                                                     1620
gagccttttt ccagggctaa ggaaagagaa aaggaatgtc ctatagaagg ttgttaggat
                                                                     1680
agaatttggt aaaagaacgt tgcagatatt gtaacagacc ataggagatt tcatcagcaa
                                                                     1740
taggattett etttggagaa aatacattgt eeatamaet tgtaetetat teatteaact
                                                                    1800
catgtgagca agctcaactc actccacctg ggttaggtaa cagaagtgga gaacttcata
                                                                     1860
gttcgtgtct agaaaataat gtttaaagtt ctggagaatg agggtattgc agattaaaag
                                                                     1920
gcgagttgac aaatgaagga gcagtgaaag atttttggaa gaagtgaaga agtgaaattc
                                                                     1980
tgaaaaggta aaagaaagaa ccagtatgtc acaggggcca agtcagagga cagataataa
                                                                     2040
gaaacaaagt tgtatctgag agtcatatat taggacaggt gtcagatatt tattttggtg
                                                                     2100
gccagataaa agcaaaaggc ctagaaacag tgtgttagca aagtaagaag aaatggtcca
                                                                     2160
aataggcaag gataaggaaa tccaaaggttgtctttaaat atttctcaaa agagaaagcc
                                                                     2220
ttgaaagaag catacaatag agaaaaaata aattaccagt atttattatt agaaaagata
                                                                     2280
gaaagacaga caaatcagtg gaggaattaa aacagagaaa ctggagttta taaaacagag
                                                                     2340
cccaatcctt gccttctctc cctccactca aatagaaaag gagaatggag aaagagaaag
                                                                   2400
aaggtattag gctacagttt ataagagaga tgagaaaaaa atacatttgg gaatagaggg
                                                                     2460
aaagggtcaa aaggggtcac atttggagaa atatctgaaa atgagaagga gcagaatttt
                                                                     2520
tggaaacatt ttttaaagtc tggcaacgct aattaagctg ttgatctaag gatttgcaaa
                                                                     2580
ttgagaggtg caattatttt ccaaægatt tgtgacactc ttattaatta gaatatatat
                                                                     2640
tctgtgaata ttgaaatctg agccaaaact agttagcttt attaatatct tagggaaaga
                                                                     2700
agagagaaag aaagaaggag ggagagagag aaagaaagaa agaaagaaag aaagaaagaa
                                                                     2760
agaaagaaaa aaaaaaaaa aaaa
                                                                    2784
<210> 162
<211> 943
<212> DNA
<213> Homo sapiens
<400> 162
gtattttcaa gggtctgtcc tgttatagca cataacggaa cttcattcct tttttaaaag
                                                                       60
atataattca tgtaccaggt gattcacccc tttaaagtct caaattcagt ggtttttagt
                                                                      120
atatttccag aattgtgcag ttatcactag gagcaatttt agaatgtttt catcacccgg
                                                                     180
aaagaaactc tatatccata cgcagcctct ccccatttct ccccaacccc cagccctagg
                                                                      240
caaccactca tetgetttee gtgtetgtag gattgettgt tetggaaatg ttgtatacat
                                                                      300
ggaatcatgc actgtgaact cttgtgtgtc acagaaggat catgtttcca tggtggtct
                                                                     360
gtgtcatagc atgtatcagt gcagtaaccc cccttatcca aggttttact ttctgcagtt
                                                                      420
tcagttaccc acagtacagt acagtaagat attttgagag agagaccaca ctcacattac
                                                                      480
ttttattgta atatatcgtt ataattgttc tatttgatta ttgttgttaa tctcttactg
                                                                      540
tgccttattt agaagttaga ctttgtcata agtatgtatg tataggagaa aagatagtat
                                                                     600
atataaggtt tggtgctatc cacagtttcg gacatcccct gggggtcttg gaatgtawcc
                                                                      660
tgtggataag cgggaccact gtacttcatt cctttttatt gtcaaataat attycatkgk
                                                                      720
gtggctawgc catawtttgc cyattcattc gtcagttggt agacatttgaggtgtttcca
                                                                     780
twttttggct tttgtgaaga atcctaggcc gggcacagtg gctcatactc ctgggacctt
                                                                      840
gggaggccaa gacgggacga tcacttgagc tcaggaattt aagaccagcc tgggcaacat
                                                                      900
agtgagactc tgtctctaca aaaaaaaaaa aaaaaaactc gag
                                                                      943
<210> 163
<211> 1794
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
```

```
<222> (1675)..(1675)
<223> n equals a,t,g, or c
<400> 163
gctcctctag tgactgctgg ggtgctagtt ttcacggtta ccacagaact tgagagagga
                                                                       60
aaatgagaac ggcaaattaa aatgccataa aattccattc ttaasagcg ttagtttttt
                                                                     120
tttcctatat atccactccc tcacctatct tatgacatat gagaaatcct aacatgggac
                                                                      180
ttggtgtata attagcattg aatgaattta agttttcttt ctttctttct tttcttttat
                                                                      240
cttctgtggt ctcctgcaga atcagtctat aaaaagggca tggtaaaaaa aaatctatct
                                                                      300
catagcattg ttgaaaagat taaatgacat aataagatga tgcatatata gtagctagca
                                                                      360
ctgtacctga tgcatattag gagcttgata atattactaa cattatcatc atcaatgcta
                                                                      420
tctgagcaaa gaggctgttc cttctttcca gccagagttc ttctgttgga taatatttcc
                                                                      480
agctgtgaac cccaaccaga gaccttgaag cctttatttccttttctctc attggccttt
                                                                      540
ggctgaagtc tcctttctgc agagaacaaa gtgaccagct tttgatgaac tattttcctc
                                                                      600
ttttatccat ttccaagtgt tagccatagt gaagaagtgt agctgggtgc tagcccaact
                                                                      660
caagaagtga taatgtwata tccaacccaa gataaactca aggataactt tcaacacggc
                                                                      720
tactcaagca gttcaggggg gaggcatctt gtagagagga gaccaggaag tcacttggca
                                                                      780
gctgggccag cacacagagg gccattgctc cagtaaagca gctaacctcc atctcttcat
                                                                      840
caaaccatcc tagactcagc actctgcaga gaaggagcag atggagggaa tgtgtggaga
                                                                      900
gattagataa gaaggatttc taatctagtg ggggagcgag taaaatgtac agaagtttga
                                                                      960
gaagccaagc tottatgtam maatccrccc ccatcactca acaatcccca ctgtatgaat
                                                                     1020
aaagcctgga aagtttccaa ttaaaacagt gcttgtgaat attggcaagg ggtatctttg
                                                                     1080
tgtgcagggt acatttaaag ggagaagggt gaagatacac ccttgcctty taggagtaca
                                                                     1 104
ctttctgaga gcttgttcac caggctgtga gtttctcagt ctatctgttt ctcagtctgt
                                                                     1200
tagtaatgaa tgtatctccc acttagcaca gcagctagca catagtagat gcctaacaaa
                                                                     1260
tgtgtgttaa attgaatgtt ggaagtctgt gtcctgaaag cttttcttca catattacaa
                                                                     1320
\tt ggctttttat \ ttgttcaaca \ catttttac \ aagtttttt \ ctgtgttcca \ ggtcttttga
                                                                     1380
ttagctgttt ttaagtcaca gaaatgggtg tcgggaacaa aaccagtcaa aagtcctcat
                                                                     1440
tctacatcat ttacactttc ccttcctata tttataagtt ttaatatcag cttctacaat
                                                                     1500
aggttccaga acaagtggtg ctcaaggaat ggagaaaatg actattccaa ccctagctgt 1560
aggtgaacca aaaaccccag agaaatcaaa gtgtagttta aagcagtgct tctcaagttg
                                                                     1620
taatgtgcat atagatcacc tggggttgtt attaaaatgc aaattctaaa agagncagga
                                                                     1680
gaatatettg ageetgggag eeagaggttg eagtgageeg agateattee actgeattee
                                                                     1740
agcctgggtg acacagcgag actccatctt aaaaaaaaa aaaaaaaact cqta
                                                                     1794
<210> 164
<211> 887
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (303)..(303)
<223> n equals a,t,q, or c
<400> 164
ggcacgagag aattataggt gcatgatggg gcttttggag actggcaatg ttctgtttg
                                                                      60
ggtctgggta gtggttactt gtgtgtattc actttatgct aactcattga actgtacaga
                                                                      120
tatggactgt gcccctttct atatgtgtgt aatgcttcaa caaaagtgtc aatagtgatg
                                                                      180
catgcacatg ttaaaatttc aaactatatt aaagagtgtg caattaaaag gaagttatcc
                                                                      240
teteacteta aagteetatt teetetette agtetateat taetaetagt ttetagtata
                                                                      300
tcntttagaa atgkgctgta aaagaacaat gatgtgtatg tctctacagg tatatattta
                                                                      360
ttctttttgt aattacaaaa atataaactc actacatatg ttattctacc acatgctttt
                                                                      420
tttcatgtaa cagtatgtct tagacatctt ttcctattat tgcgtggaag tatcaacct
                                                                     480
tattctttgt aatgactcca taaattattc tactgtgaaa acaccactg tttaaccagt
                                                                      540
tctctgttag tgaacattta ggatttttcc agtttttaaa tattacagtg acatattaaa
                                                                      600
cattaaacat atcttttgac acatgtcctt gcacacatgt ataggtatga tggactttaa
                                                                      660
```

```
720
caccetttgg ctagattett tageacataa egtaaatate eeatagagte aaaaceacee
                                                                      780
ttaaaacttc ctcaggaggc tgggtgtggt ggctcacgcc cgtaatccca gcactttagg
                                                                      840
aggccgaggt gggcggatca cgaggtcagg agatcgagac catcctggcc aacatggtga
                                                                     887
aaccctgtct ctactaaaaa tacaaaaaaa aaaaaaaaa actcga
<210> 165
<211> 1222
<212> DNA
<213> Homo sapiens
<400> 165
                                                                       60
aattcccggg tcgacccacg cgtccgagcc cagcaacgtg caaggggaaa ggggacagga
                                                                      120
ttctggatgg ccatttgctt cactgggatg caaaacctct tttgagtact agaatcagta
tttcttcttc catctctgct gtacctgaga agaaatggcc aaacgcacct tctctaactt
                                                                      180
ggagacattc ctgattttcc tccttgtaat gatgagtgcc atcacagtgg cccttctcag
                                                                      240
                                                                      300
cctcttgttt atcaccagtg ggaccattga aaaccacaaa gatttaggag gccatttttt
                                                                     360
ttcaaccacc caaagccctc cagccaccca gggctccaca gccgccaac gctccacagc
cacccagcat tccacagcca cccagagctc cacagccact caaacttctc cagtgccttt
                                                                      420
                                                                      480
aaccccagag tctcctctat ttcagaactt cagtggctac catattggtg ttggacgagc
                                                                      540
tgactgcaca ggacaagtag cagatatcaa tttgatgggc tatggcaaat ccggccagaa
                                                                      600
tgcacagggc atcctcacca ggctatacag tcgtgccttc atcatggcag aacctgatgg
gtccaatcga acagtgtttg tcagcatcga cataggcatg gtatcccaaa ggctcaggct
                                                                      660
                                                                      720
ggaggtcctg aacagactgc agagtaaata tggctccctg tacagaagag ataatgtcat
                                                                     780
cctgagtggc actcacactc attcaggtcc tgcaggatatttccagtata ccgtgtttgt
aattgccagt gaaggattta gcaatcaaac ttttcagcac atggtcactg gtatcttgaa
                                                                      840
qaqcattqac ataccacaca caaatatqaa accaggcaaa atcttcatca ataaaggaaa
                                                                      900
                                                                      960
tgtggatggt gtgcagatca acagaagtcc gtattcttac cttcaaaatc cgcagtcaga
                                                                     1020
gagagcaagg tattcttcaa atacagacaa ggaaatgata gttttgaaaa tggtagattt
                                                                     1080
gaatggagat gacttgggcc ttatcagttt ttcattcagc aagtctgcac tagggaccta
                                                                     1140
ctatgagcca cgcaatactt ccttggaatg atgtattccc tggccttgaa ataaggaatc
                                                                    1200
tagtacccat gtttgtgcta ctggaatgaa tcc&taaac tctctgagac tcaaaaaaaa
                                                                     1222
aaaaaaaaa aaaaaaagg gc
<210> 166
<211> 1815
<212> DNA
<213> Homo sapiens
<400> 166
                                                                       60
cacgcgtccg cggacgctgg gctcaatctc ctgaccttgt gatctgcccg cctcggcctc
                                                                      120
ccaaagtgct gggtttacag gcatgagcca cagcgcccgg ctgagtattg ggtctttagg
ggtcaaaact tttgatcttt gcttgcagtt tttgtttttt tctcttttac actctccctg
                                                                      180
                                                                      240
ttccctgatt aaatgaaggc caggcttgcc tagttccagg gaaaaggccc agggtgccta
gagcaaggtg gatgggactt tgttcgcaga tggccttga gagagcgacc cctcgctcct
                                                                     300
aaatgcccgg aggaagggac ggacttcttt atctttacca tgggtattct gccttactgc
                                                                      360
tttggcctgt ggcgtttctt cacttgcttt tcctcatttt gcttggaatg tgctttgcct
                                                                      420
gttgcatacc cacctcgtct gcccccttgc acactccatg gctggcctaa aagcccagtc
                                                                      840
tgctgtcctg tgccctttag acttccactg taggattatg tttccacact ccctgtggac
                                                                      540
                                                                      600
tgtgccactg gagctctctg cagacaggga ctgtgtcagg ttgacctcca tccttcagac
cagcccagtg cctggcaggt agaggaaaga gaagctgagg aaggacttgc tgcacaagtg
                                                                      660
gatgccagga gctctggtct tcccttcttg aatctgctac cttatgatgg gagggacaca
                                                                     720
                                                                      780
gggctgtgct ggatttgtgc acgatgcttt ggacagccca tgggagaggg ccaggaggaa
                                                                      840
ggaaacccag actgagtgga tagcaggctg gatgggggca ttgacagtgg gggaagcatt
                                                                     900
aaaggccatt tatagccttc acaggtcttg gtaatgggct cttacacggg ttggtggcgg
                                                                      960
aaggacacag gtggacctgg gctggtggtc actcctgggc tgctcttggc cctggcatct
                                                                     1020
gagacctgtt ggccaaaggc tttgatgtgg ctctggtatt ttttcttttt tttgagaatg
                                                                     1080
gaactttttt ttttttaatg aaatgctctt ttgaataggc aatacagtca cgtttctaaa
```

```
1140
atqaaaatat attaaaatat atttaagaa attttgcccc tcactcctga tctcatctct
                                                                     1200
gtcctccctc ctccctggta accacctgta gcagtttgaa tacccttcta gtttttctta
                                                                     1260
atgcaagtac agcaaacaca aattgtgtat tattatttct cccttttcag taaatgaaag
atagcattct gtgtgtactg ttcttcatct tgtgcttttt ttaacttatt gtgagattt
                                                                    1320
                                                                     1380
ttccatatca gtgcatggag aatggttgtc attctctttc agctgtgttg cactgtgaag
ttgtccctgt ttgaatactc acccctgagg aaaggcacct ggctgtttcc agcttgtttc
                                                                     1440
atgacatgcc ggcgacagtt gtctcacgtg cacatcgttt cccacattgc agtggtcctg
                                                                     1500
cagggtggca tcccgcægc acattgctga gtcaaagagg aaacacagtt gtaattttga
                                                                    1560
cagattttgc ccagttgccc tctacagggc ttgttccatg ttgcactccc actggcggtg
                                                                     1620
                                                                     1680
ttgatgcctg attccccact gactcgtcaa cacaaggtgt agtcaaatgc ttggagttct
                                                                    1740
gccagcctga ccaacatgga gaaaccctac tgaggataca aagttagca ggcatggtgg
                                                                     1800
tgcatgcctg tagtcccagc tgctcaggag cctggcaaca agagcaaaac tccagctcaa
                                                                     1815
aaaaaaaaa aaaaa
<210> 167
<211> 1262
<212> DNA
<213> Homo sapiens
<400> 167
cctaatggcc cgasctgaat acttgaagga gctcaagatg agggaatctc gctgggaagc
                                                                       60
                                                                      120
tgacaccctg gacaaagagg gactgtcgga atctgttcgt agctcttgca cccttcagtg
                                                                      180
accctagaag aatgattgga cagatgtgag ccatctggag cagaggggca ctaacccagg
ctgacgccaa gaatgaagtg gcccactgca gccctggcga gcaggctct tggatggaca
                                                                     240
qtqctqaqac ccccatatcc cagagtcccc agcctccctc aggttactct gcaccccaca
                                                                      300
                                                                      360
gatggtttga tggctgtgct gtatactgga ggggagggca ggactctggg agaacagcac
                                                                      420
ttctttcatg agacctttgt tactcggtgg ttactgggtc ctgtgcctgt ccgttttggg
                                                                      480
gcatgcagcc ctctatcatt tttggctccg agaagagggc aaggggcccc cgcaggtarc
                                                                      540
ttctgtgctt gccctcgccc tgccagcagg cagctgtgcc cctggcctgc ccttcccggg
                                                                      600
accccttatt ccaactcagc tcctctttgc actggaatgg ggcactccaa cacccctcag
                                                                     660
ggaccaccet ceceacagta tgeacteage eccaeagaae caccagtet ttetgggaae
                                                                      720
tcacacctgc ccgccatctt ggtactttag gttaatccct caagcatgaa agctggatct
tttggggttt aagaagccca agccttgttc ctgccctggc ctagggagca ctcaggaggg
                                                                      780
                                                                      840
ttccttggtc ctcatctctc ccacctccgt tccctctggg ccccacacta gccacagcgc
                                                                      900
gggccttgtg ctggagtttg agcctgggac agggagaggg aggcttggag acagtctgac
                                                                      960
ccaqtqccct ctagqccacc cacttctagg cctgccctgc cgccgtggag ccctgggcaa
                                                                     1020
gctctttccc ctttctgggc ctgggtctcc ccatctcttc aatggggctg ataccttcac
                                                                    1080
agcccacagc atgggcactt atgaggacaa agtgaatta acctggaaaa gaatgtattt
                                                                     1140
gagagtttct tttaaataat cagcgggtgt tggtgatttg tagcccttct gcccttaaat
gcttccttgg gcaagagctg tctgtcctcc ctgcaggagg ctgagtgtga agagtatcat
                                                                     1200
tcattgtttc tctattaaat tattttctgc taaaaaaaaa aaaaaaaaat ttctgcggtc
                                                                     1260
                                                                     1262
cg
<210> 168
<211> 632
<212> DNA
<213> Homo sapiens
<400> 168
                                                                       60
aattcccggg tcgacccacg cgtccgcgac ggtctcatgt accagaaatt ccggaaccaa
ttcctctct tttccatgta ccagagcttc gtgca@ttc tccagtacta ctaccagagc
                                                                     120
ggctgcctct accgcctgcg ggcgctgggc gagcggcaca ccatggacct cactgtggag
                                                                      180
ggcttccagt cctggatgtg gcggggcctc accttcctgc tgccttttct tttctttgga
                                                                      240
                                                                      300
cacttctggc agctttttaa cgcgctgacg ttgttcaacc tggcccagga ccctcagtgc
                                                                      360
aaggagtggc aggtgcttat gtgcggcttt cccttcctcc tccttttcct cggcaatttc
ttcaccaccc tgagggttgt gcaccacaag tttcacagtc agcggcacgg gagcaagaag
                                                                      420
gattgaggct gggccttccc ctgccggccc agaggggctt ctgtcctgtg tgttgtggga
                                                                      480
```

```
540
ggggatggga ggcgcccctc gagtgtgcgt gtatcagggg gtctcttcta ttctcccttg
                                                                      600
ggttttatgg gcgctgtggg ccctgaagga agacctgggc ccagtgccct caataaagag
                                                                      632
aggcccagag gtggaaaaaa aaaaaaaaaa aa
<210> 169
<211> 2572
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2527)..(2527)
<223> n equals a,t,g, or c
<400> 169
aattoggcac gagtotggac ottottagmt tgottgatat caggttgttt ttgtagcoat
                                                                       60
tttgcttcac agtcacctgg aatgccggga gcccctgctc atcccgatcc tctccttgta
                                                                      120
                                                                     180
catgggcgca cttgtgcgct gcacaccct gtgcctgggc tactacaaga acattcacga
catcatccct gacagaagtg gcccggagct ggggggagat gcaacaataa gaaagatgct
                                                                      240
gagettetgg tggeetttgg etetaattet ggeeacacae agaateagte ggeetattgt
                                                                      300
caacctcttt gtttcccggg accttggtgg cagttctgca gccacagagg cagtgggat
                                                                     360
                                                                      420
tttgacagcc acataccctg tggtcacatg ccatacggct ggttgacgga aatccgtgct
gtgtatcctg ctttcgacaa gaataacccc agcaacaaac tggtgagcac gagcaacaca
                                                                      480
gtcacggcag cccacatcaa gaagttcacc ttcgtctgca tggctctgtc actcacgctc
                                                                      540
tgtttcgtga tgttttggac acccaacgtg tctgagaaaa tcttgataga catcatcgga
                                                                      600
gtggactttg cctttgcaga actctgtgtt gttcctttgc ggatcttctc cttcttccca
                                                                      660
                                                                      720
gttccagtca cagtgagggc gcatctcacc gggtggctga tgacactgaa gaaaaccttc
                                                                     780
gteettgeee ceagetetgt getgeggate ategteetea tegeeageetegtggteeta
ccctacctgg gggtgcacgg tgcgaccctg ggcgtgggct ccctcctggc gggctttgtg
                                                                      840
                                                                      900
ggagaatcca ccatggtcgc catcgctgcg tgctatgtct accggaagca gaaaaagaag
atggagaatg agtcggccac ggagggggaa gactctgcca tgacagacat gcctccgaca
                                                                      960
                                                                     1020
gaggaggtga cagæcatcgt ggaaatgaga gaggagaatg aataaggcac gggacgccat
gggcactgca gggacagtca gtcaggatga cacttcggca tcatctcttc cctctcccat
                                                                     1080
cgtattttgt tccctttttt ttgttttgtt ttggtaatga aagaggcctt gatttaaagg
                                                                     1140
tttcgtgtca attctctagc atactgggta tgctcacact gacggggga cctagtgaat
                                                                    1200
ggtctttact gttgctatgt aaaaacaaac gaaacaactg acttcatacc cctgcctcac
                                                                     1260
                                                                     1320
gaaaacccaa aagacacagc tgcctcacgg ttgacgttgt gtcctcctcc cctggacaat
ctcctcttgg aaccaaagga ctgcagctgt gccatcgcgc ctcggtcacc ctgcacagca
                                                                     1380
ggccacagac tctcctgtcc cccttcatcg ctcttaagaa tcaacaggtt aaaactcggc
                                                                     1440
ttcctttgat ttgcttccca gtcacatggc cgtacaaaga gatggagccc cggtggcctc
                                                                     1500
ttaaatttcc cttccgccac ggagttcgaa accatctact ccacacatgc aggaggcggg
                                                                     1560
tggcacgctg cagcccggag tccccgttca cactgaggaacggagacctg tgaccacagc
                                                                    1620
aggctgacag atggacagaa tctcccgtag aaaggtttgg tttgaaatgc cccgggggca
                                                                     1680
gcaaactgac atggttgaat gatagcattt cactctgcgt tctcctagat ctgagcaagc
                                                                     1740
tgtcagttct cacccccacc gtgtatatac atgagctaac ttttttaaat tgtcacaaaa
                                                                     1800
gegeatetee agatteeaga eeetgeegea tgaettttee tgaaggettg etttteeete
                                                                     1860
gcctttcctg aaggtcgcat tagagcgagt cacatggagc atcctaactt tgcattttag
                                                                     1920
                                                                     1980
tttttacagt gaactgaagc tttaagtctc atccagcatt ctaatgccag gttgctgtag
ggtaactttt gaagtagata tattacctgg ttctgctatc cttagtcata actctgcggt
                                                                    2040
acaggtaatt gagaatgtac tacggtactt ccctcccaca ccatacgata aagcaagaca
                                                                     2100
                                                                     2160
ttttataacg ataccagagt cactatgtgg tcctccctga aataacgcat tcgaaatcca
tgcagtgcag tatatttttc taagttttgg aaagcaggtt ttttccttta aaaaaattat
                                                                     2202
agacacggtt cactaaattg atttagtcag aattcctaga ctgaaagaac ctaaacaaaa
                                                                     2280
aaatatttta aagatataaa tatatgctgt atatgttatg taatttattt taggctataa
                                                                     2340
tacattteet attttegeat ttteaataaa atgtetetaa tacaataegg tgattgettg
                                                                     2400
                                                                    2460
tgtgctcaac atacctgcag ttgaaacgta ttgtatcaat gaacattgta ccttattggc
agcagtttta taaagtccgt catttgcatt tgaatgtaag gctcagtaaa tgacagaact
                                                                     2520
```

```
atttttncat tatgggtaac tgggggaata aatggggtca ctgggagtag gg
                                                                   2572
<210> 170
<211> 1488
<212> DNA
<213> Homo sapiens
<400> 170
cgccaagttt ccggagggag agggtagaaa ctggagggg tggacctgtc actcacggga
                                                                     60
ctgagggtcc ttttctcccg ctcccaggag gaacgagaat gaatatgact caagcccggg
                                                                    120
ttctggtggc tgcagtggtg gggttggtgg ctgtcctgct ctacgcctcc atccacaaqa
                                                                    180
ttgaggaggg ccatctggct gtgtactaca ggggaggagc tttactaact agccccagtg
                                                                    240
gaccaggeta teatateatg ttgeetttea ttactaegtt cagatetgtg cagacaacae
                                                                    300
tacaaactga tgaagttaaa aatgtgcctt gtggaacaag tggtggggtc atgatctata
                                                                    360
ttgaccgaat agaagtggtt aatatgttgg ctccttatgc agtgtttgat atcgtgagag
                                                                   420
actatactgc agattatgac aagaccttaa tcttcaataa aatccaccat gagctgaacc
                                                                    480
agttctgcag tgcccacaca cttcaggaag tttacattga attgtttgat caaatagatg
                                                                    540
aaaacctgaa gcaagctctg cagaaagact taaacctcat ggccccaggt ctcactatac
                                                                    600
aggctgtgcg tgttacaaaa ccaaaatcc cagaagccat aagaagaaat tttgagttaa
                                                                    660
tggaggctga gaagacaaaa ctccttatag ctgcacagaa acaaaaggtt gtggaaaaag
                                                                    720
aagctgagac agagaggaaa aaggcagtta tagaagcaga gaagattgca caagtggcaa
                                                                    780
aaattcggtt tcagcagaaa gtgatggaaa aagaaactga aaagcgcatt tcqaaatcg
                                                                   840
aagatgctgc attcctggcc cgagagaaag cgaaagcaga tgctgaatat tatgctgcac
                                                                    900
acaaatatgc cacctcaaac aagcacaagt tgaccccgga atatctggag ctcaaaaagt
                                                                    960
accaggocat tgcttctaac agtaagatct attttggcag caacatccct aacatgttcg
                                                                   1020
tggactcctc atgtgctttg aaatattcag atattaggac tggaagagaa agctcactcc
                                                                   1080
cctctaagga ggctcttgaa ccctctggag agaacgtcat ccaaaacaaa gagagcacag
                                                                   1140
gttgatgcaa gaggtggaaa tgttctccat atcaagatgt ggcccaaggg gttaagtggg
                                                                   1200
aacaatcatt atacggactc ttcagattta cagagaactt acacttcac tgttccacct
                                                                  1260
ctcctgcgat agtcctgggt gctccactga ttggaggata gagccagctg tctgacacac
                                                                   1320
aaatggtctt ttcagccaca gtcttatcaa gtatcctata tgtattcctt tctaaactgc
                                                                   1380
tactcatgaa tgaggaaagt ctgatgctaa gatactgcct gcactggaat gttaaacact
                                                                   1440
aaatatataa caagctgtgt tttcctaagc tgaaaaaaaa aaaaaaaa
                                                                   1488
<210> 171
<211> 609
<212> DNA
<213> Homo sapiens
<400> 171
ccacgcgtcc gcggacccca gacatgagga ggctcctcct ggtcaccagc ctggtggttg
                                                                     60
tgctgctgtg ggaggcaggt gcagtcccag cacccaaggt ccctatcag atgcaagtca
                                                                   120
aacactggcc ctcagagcag gacccagaga aggcctgggg cgcccgtgtg gtggagcctc
                                                                    180
cggagaagga cgaccagctg gtggtgctgt tccctgtcca gaagccgaaa ctcttgacca
                                                                    240
ccgaggagaa gccacgaggt cagggcaggg gccccatcct tccaggcacc aaggcctqga
                                                                    300
tggagaccga ggacaccctg ggccgtgtcc tgagtcccga gcccgaccat gacagcctgt
                                                                    360
accaccetee geetgaggag gaccagggeg aggagaggee eeggttgtgg gtgatgeeaa
                                                                    420
atcaccaggt gctcctggga ccggaggaag accaagacca catctaccac ccccagtagg
                                                                    480
gctccagggg ccatcactgc ccccgccctg tcccaaggcc cagctgttg ggactgggac
                                                                   540
600
aaaaaaaa
                                                                    609
<210> 172
<211> 612
<212> DNA
<213> Homo sapiens
```

```
<400> 172
                                                                       60
qqtcqaccca cqcgtccgag catttgtctg tataatttta gttattgaat taaaatcttt
                                                                      120
tgggacccca acaggatgag atcattggcc agctggcttc ctcccacctg cacctggact
                                                                      180
qaaattcccc gtggcattag aggtgtttcg taaggtgctc cctgctgtct gtcctacaga
                                                                     240
ttgcagtgqc tctqctgqaa aagaacggaa ttctatgcaa gtgcgtgtg tcatgaaggt
                                                                      300
ctctgcacag tgggtgttt tctttgtcgt cttttctcca ctctgctctt ctgtgaaatg
                                                                      360
tgccagcagt ggacagaaca ggggcagagg tgatcagtga ccattgcaca gaatatcagt
                                                                      420
aagtgttgta aggtatatag tcttggccaa caaattgtaa gcaaaatacc aggaacttcc
taatctagta ggaaattttg tatgcttttg acaaacatct gatcctactg acactgaaag
                                                                      480
tccttagaag gagaattgct tgaacccgga aggtggcggt tgcagtgagc caagatggcg
                                                                      540
ctactgcact ccagcctggg caataggaat gaaactccgt caccaaaaaa aaaaaaaaa
                                                                      600
                                                                      612
aagggcggcc gc
<210> 173
<211> 704
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (287)..(287)
<223> n equals a,t,g, or c
<400> 173
actgtgtctg tcttgtctct gatatttata tgccattatg tggcctctac tgccttagga
                                                                        60
                                                                       120
ttctaatqtt cccactaaga tcagctaact cagttccact acagtgttta ccaccatcat
                                                                       180
ctctcqcaaa caaaqacaqc cacttcaqaq ctcctaggaa atagtggtgc tcccatcatc
                                                                       240
attgcattcc ttaatsacat ggtgaaaatt aacaatggct aaggagcctt tgtgttttct
                                                                      300
cctctacaat atgcccagga atttctggca ttttggccat cttattnata ggctattact
                                                                       360
gaatttmagc ctmatcctmc caaattatta atgccaaaat attaactctt gattcttagg
tgagtgcacc catgccaata aatttgccat gatctaacct taaatgtatt ctcatatatg
                                                                       420
                                                                       408
ctgtccaagt ttctrctgat taaaatggca aggcctttag ttctcctaca taggttttct
ctctccagag aaggcctcaa ttctctgact aggctatgtt gggatataac tggaggcact
                                                                       540
                                                                       600
aataggtagt agggtaaatt ctttatttta ttatttttgg agacagggag ggtcttgctt
tgttcagact ggagtgcagt ggtgtgatca tggctcattg caactttgaa ctcctgggcg
                                                                       660
                                                                      704
acagagcaag actccatctc aaaaaaaaaa aaaaaaaaac tcga
<210> 174
<211> 613
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (25)..(25)
<223> n equals a,t,g, or c
<400> 174
gaattcggca cgagcgggac gcggntgaag atagcctgcg gagtgtccgg gcggaacacg
                                                                       60
                                                                       120
gttgcagcac tcccagtaga ccaggagctc cgggaggcag ggccggcccc acgtcctctg
cgcaccaccc tgagttggat cctctgtgcg ccacccctga gttggatcca gggctagctg
                                                                       180
                                                                       240
ctgttgacct ccccactccc acgctgccct cctgcctgca gccatgacgc ccctgctcac
cctgatcctg gtggtcctca tgggcttæc tctggcccag gccttggact gccacgtgtg
                                                                      300
tgcctacaac ggagacaact gcttcaaccc catgcgctgc ccggctatgg ttgcctactg
                                                                       360
                                                                       420
catgaccacg cgcacctact acacccccac caggatgaag gtcagtaagt cctgcgtgcc
                                                                     480
ccgctgcttc gagactgtgt atgatggcta ctccaagcac gcgtccacca cctcctgcg
                                                                       540
ccagtacgac ctctgcaacg gcaccggcct tgccaccccg gccaccctgg ccctggcccc
```

```
600
catectectg gecaecetet ggggteteet etaaageeee egaggeagae eeacteaaga
                                                                      613
acaaagctct cga
<210> 175
<211> 1022
<212> DNA
<213> Homo sapiens
<400> 175
                                                                       60
ttcccgggtc gacccacgcg tccgcccacg cgtccggctt ggggccagca ccctgtctca
                                                                      120
aagatggcaa aatgaggcta gttctggatg agctagctgg tgtgggttcc aaccatagga
                                                                     180
acacactgat gctcaaatcc taaggtgcca agctctaggc cctggaggct ggtagaaæg
                                                                      240
gatctatqcc tggaatcctg gcagggattc ctgtcaagga cttgtgttta agcctgcttc
                                                                      300
agggetteag getgettetg etetgtgtet geceaggetg getgageggg tggatgggtg
                                                                      360
gacagaaggg ctcaccaagg attgtggaca tagggtaggc cctggtacca cgggtttcag
                                                                      420
gctgttatca cttcccttgt ægaacatag ccagaagcag atgagccagg gtagagggct
                                                                      480
qqcccctcct ctcatcttcc cttcagtctt aaattgtctc cagcgatggg aagaggccag
                                                                      540
ggactgtaac ccttgtgctg tgtattctct gagcctctgc tcactctcag ggccaagcag
                                                                     600
ctcccaagcc ggggccctct cttggccaaa atctgaggag cagtctaggt taaggcttt
ttggtaggta ggttctggct gcctgttaat gcagttaggc cccctgatta ggtacagtga
                                                                      660
qaaacaaqct agaacaaccc tggcccagaa gactgtgcac tccagcaaga tccagggatg
                                                                      720
                                                                      780
atagcettge agggeeactg ggagtttgtg cecaagette teectettet etececaggg
ggcactggga ctggtcctg ccctcatcct tagcctgggc cttccccaga ggtattaaag
                                                                      840
                                                                      900
agaagtatga ttcctctgtc ttcagttctt ttcaggggca tcctgcccat agtacccagt
teccaaqqqq eeccaqtea eqtqqtqaaq eetaqeacte atgeagetet tagggaacea
                                                                      960
aaaaccagca ctgaaataaa gctgaatgac tgactgaaaa aaaaaaaaa aaagggcggc
                                                                    1020
                                                                     1022
cg
<210> 176
<211> 1766
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (14)..(14)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (36)..(36)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1750)..(1750)
<223> n equals a,t,g, or c
<400> 176
acgggggctt taangggaaa cccttcccgg aatttncggg tcgacccacg cgtccggttt
                                                                       60
                                                                     120
tgtttatgga gggtccagta agtgcaaaca accattgcctggtcctaagg gttcagagtc
                                                                      180
cccgaattcc ttcttggacc aggaaagccg gagacgaaga ttcaccattg cagactcgga
                                                                      240
tcagttgcct gggtactcgg tggaaaccaa cattctgccc acaaaaatga gagagaaaac
                                                                      300
accatcttat ggcaagccac ggcctttgtc catgcctgct gatgggaact ggatggggat
                                                                      360
tgtggaccct tttgccagac ctcgaggtca tggcaggaaa ggggaggatg ccctttgccg
                                                                      420
gtatttcagt aacgagcgga ttcctccgat cattgaagag agctcctctc ccccataccg
gttctccaga cccacgaccg agcggcatct ggtccggggt gcggactaca tccgaggaag
                                                                      480
```

```
540
                                                                 600
gaccaaaaag aaatctggct cctcagctac gagtcctcgt ccacagaacc gtccctcctg
                                                                 660
gtcagctggt ttacgcgcct caaactgttg actcactgag agggaccctg ctcaggccac
                                                                 702
ctgcctggct cctgscccaa gtgccttgct tttacagtgg acagcctctt ctcgtttcag
                                                                 780
cctcagtatt atgtagggac cttatgcaat ttctttttct tttgaaaagt tatctactgc
                                                                 840
ccttcttgga agtttgcagg attggatggg aacaaattca gaggatctta ggtgctggct
                                                                 900
tgtggagaca aaaggaggga aatgggtaga gcctgtttgt cttgcttccc cagagataga
atgtgaagac acgcgctaga aatcgcagtc ctggccagag acgttatggt cattgtgagg
                                                                960
gactggtggc attgttcctt tttgaggggc tggggggact caaattggtg gctgttttca
                                                                1020
cacagatgtg ttggtttgtg gtccaacttc tttatctgaa aaagccagtg agaaaacatt
                                                                1080
tttgatttga tttttctaaa ctatctacca tattttaagt gtagcagctt tgactttgca
                                                              1140
                                                                1200
ataacgtggc aagtatctga tttctccttt gaggcagagg tttaagtgta ggcctgttac
                                                                1260
acttgtttga tacctttttc atgacagtct cagtatagat cagttggtac agaaatacat
gaacacattt tgatagggct tatttcacac aaagaagttt atggttattt gtgtggggtg
                                                                1320
gtgttgttat atattattgt ctttaaggga aaagaagcta taagattcgc tgacagccaa
                                                               1380
agtatcattt agaaaagtga agcaacaaga tttaggttga tgaaagatac atgagtttgc
                                                                1440
                                                                1500
attttgacct gttcagtgtc tgtcttccag cacggtgtgt acacttcttc aaaattgtac
acagtttgct aattagaaat atcttggaaa gcctcatggt cactaatttt caatagcat
                                                               1560
caggtatttt gaaaacgtgt gtctggatat taactcttgt ttaaactgaa tgtatgatat
                                                                1620
tttgttagaa tggaaaagta ctatcttgtt aatttaagta ttttaaatat agttgtatat
                                                                1680
                                                                1740
ttttcttaaa aaaaaaaaa aaaaaaaaa aaagggcggc cgctctagag gatcccgcga
                                                               1766
ggggccccan attacgcgtg agcgtt
<210> 177
<211> 815
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (406)..(406)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (794)..(794)
<223> n equals a,t,q, or c
<400> 177
                                                                  60
ggcacgagcg gcacgagcgg cacgagatgg aatgttcatt ttatggcagt tgttttaagt
tktaaawtac acagaggaaa mtattgtgga aggacctctt tgttgctttc ccttctaagt
                                                                 120
180
                                                                 240
actctaaaac taatttgtat attatcagcc agagatgcgg atggcagtcg agccaaatcg
catggctttc agatcaggta ttctgcacat tcattccaag gtcatagatt tttaaaagga
                                                                 300
cctggatttg aagagatggc aaatgrtgag ccatcagaaa acttaatttg gaaaacatgt
                                                                 360
atgtagccag tgtggatatt gtggcctctc tcaagacaca ttgcnactg tagacytcat
                                                                420
                                                                 480
tcagtccagt gtgagtattt tggagtaggt tggatgtaga ttttgttttt atcgttgatt
tgtaccgaca gaaatagaca tttcatcatg taaaattcct gttattctgg aaaaacctat
                                                                 540
tgttttgatc cttcttgttt tcctgacttg gaagtatcct ttcaaaaaaa ctcttaagat
                                                                 600
atctaggtct aaaaagcact tcatgagatg ctaaagctga cccactggtt gaaaatgttg
                                                                 660
accctatcct gttatttaaa tgtgaacatt tattgtacat tcagtgagtt atagtgttaa
                                                                 720
                                                                 780
815
aaaaaaaaa attnctgcgg tccgcaaggg aattc
<210> 178
<211> 617
```

<212> DNA

```
<213> Homo sapiens
<220>
<221> misc feature
<222> (9)..(9)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (513)..(513)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (559)..(559)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (587)..(587)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (602)..(602)
<223> n equals a,t,g, or c
<400> 178
atggaaaanc aggcaaatcc tgaaatggc tggaaaaaag ggagggaccc agcactycca
                                                                       120
gggagaaaac ttggcattyc ttgggaatct aacaggatgc agtgaaccca agccttttga
agageteace aateagactg ecettgteta teeatgagea gatgtttgat agtattgegg
                                                                       180
                                                                     240
aggcctcta gtgggtatgc tgccaagcaa ctggagtggc acttgggctc taatccagt
gtctatccct ttcaccctgg catttcatca gccaaacaaa aaccaactaa ctcagaaaaa
                                                                       300
aaggaaagcc cctcaagggt cctttgaccc cgatatctac atagatgcta tcggggtccc
                                                                       360
ctgaggggta ccaaacraat tcaaagctcg aaatcaaata gctgctggat tcaagtctgt
                                                                       420
ccttttcttg tggtctacta tæataaaaa tgtagactgg ataaattaca tatactataa
                                                                      480
                                                                       540
aaaaaaaaa aaaaaaaaa ctcgaggggg ggnccggtac ccaattcggc ctatagtgag
                                                                       600
tcgtattaca atcatgggnc gtcgttttac aaagtcgtga ctggggnaaa acctggcgtt
                                                                      617
anccaattta atcggct
<210> 179
<211> 2286
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2262)..(2262)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2264)..(2264)
<223> n equals a,t,g, or c
<221> misc_feature
```

```
<222> (2272)..(2272)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2278)..(2279)
<223> n equals a,t,g, or c
<400> 179
                                                                    60
gctgatgtcg aggttcatcc tgaaccacct ggtgctggcc attccactga gggtgctggt
ggttctgtgg gccttcgtct tgggcctatc cagggtcatg ctggggcggc acaatgtcac
                                                                  120
cgacgtagct tttggctttt ttctgggcta catgcagtac agcatcgtgg actattgctg
                                                                   180
                                                                   240
gctctcaccc cataatgctc cggtcctctt tttactgtgg agtcaacgat gacaccatct
                                                                   3M
cattgattat ggcaccagga agtctgaagg tttccacatt cgatgatgtc aacctaaacc
                                                                   360
agcagccatc ccgcttgtcc ctcttaggca tttcaggctt cctttgggat ttcaggtgtc
                                                                   420
ccatgatett gatgtgetge taggetggag cacacactgg ccattactga acacagecat
attagggaaa gcaaaaaac ccaaaaaatc ctctattgta tatttattca acaactgttt
                                                                   480
                                                                  540
atgtttccag gacaactgca aagaaaaca gctgaggtgg ttatactgtt gctgttaaaa
                                                                   600
gttggtatca gtaagatttg tgttttgtga taatccctaa atcaacatac cacttgtaaa
ctgaacttcg agaaagaaac atgatgttca ttctgtaaat atacatgcag acaggtcatg
                                                                   660
tactaatcct agtccttttc ctgaggtaga tittaaacag tattttaaa gtccaagaca
                                                                 720
                                                                   780
taggtttttc tagtttattc cctgaagatc tgttgccaca gttgggagat ttcttcttaa
tcctgatttt cttggtaagc ttttttactt tattatctct ataatttatt atctctatcc
                                                                   840
                                                                   900
atatttgtgg atcgggtagt gggaaaagag attataatac ttgtctttct ctcctccc
tocatcoctc aaaaqatott tatgcattto coactactco ottactgtot tttagcatto
                                                                  960
                                                                  1020
agagaaaaag ccaacttgct taaagaggaa tcacttaaaa ggtaggcata tctaagatgc
                                                                  1080
tcatagaaga ggaagaatgg gacatggccc catgcttatt tttgtttaca acgtaacatg
                                                                 1140
gcatgagaga gggcagagaa actaagttgc tggggaaagt tagaggaact gaagtttgg
gaataggctg accacatatt atgccagtga ccagtatgac aggagatggg gccctgctgc
                                                                  1200
                                                                  1260
cagtcatctc cactgaataa agaataatgc tcctctttca gggtaataaa gtggggaaaa
                                                                  1320
ggaacgtctt ctcaatgcaa gaacataagc tttctcgtat atacctgtat gctacagttt
                                                                  1380
ttcacatgga attccgtttt ctgaggtaca gcacatttta ggtaacagta tttaacttga
aattcatcat gggagtctgc tgctatacca ggcacaagat aaaactccaa aatttctgtt
                                                                  1440
tacattgacc tttacattta aagctgttca tccatggtgc ctccccaaat cataagacca
                                                                  1500
aagaccacca aacgcagggt ggactctgct cattattctt tgacccaga agactggaga
                                                                 1560
                                                                  1620
aggtatgtgc tttaagtgct gctctacctg aaaagaaatc ctttaaatta cctatggaag
tgatgtcctc agataatctt aatgactatt ttggcattta taaatagaaa tgattatgga
                                                                  1680
ctttgatctg ccatacggag gttcggaacc tggagaaygg ctgtgataag taggttttga
                                                                  1740
                                                                  1800
ttgagtgaaa gcatgagctt gttcagagtg aggggcatag tgaaaaagga acagccatgc
ctcawaatca aatcatttgc rttcccacag catcctgaat accgactacc tcttcacttg
                                                                  1860
ctaaagcagc taaactgtga agctctaagt ggtttgggtt tgttgtttaa ccttagcgag
                                                                  1920
                                                                 1980
atcetttaac tgcagcaata ttcaagccag atatttggaa gcaatgata tttcctcttg
                                                                  2040
cagtqtccac aaatctqaat attaggggca tgaaattagg cttaccatct gatttgtaat
tacaattttg gaattetetg ttttagttge tgaggeetga gttttetgge tettaaagea
                                                                  2100
                                                                  2160
2220
2280
tggtgaaaaa aaaaaaaaa aaaaaaaact cgaggggggg cncnaaaaca antcgacnna
                                                                  2286
tagtga
<210> 180
<211> 1240
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1225)..(1225)
```

## <223> n equals a,t,g, or c

<211> 1770 <212> DNA

```
<400> 180
gtgaaacgcc tgggctcaag ctgattcacc tgcctccacc tcccacagtg ctgggattac
                                                                       60
                                                                      120
aaacatgatc ccccacgccc agccaacaca aaacttctga tgctctgttt tctcatctgt
                                                                      180
gaactggagc taaggctaag tggtctgtct gtttaataag agtttgaatc agatggcctg
                                                                      240
gcatgaagag tcactggcct gagagaatgt caggggcatt tgtaaatgtg taaagggctg
aaaaatcctg agggattatt attattgcta ttgttgttat tattcacaga cacatccaac
                                                                      300
agccattgtc tgcctcctta tctgtcatgc ttctgcacg agcgtcagcc tgagcttcaa
                                                                     360
tctgtgtgta tatctgcagc ttacgtcctt gccacccctc cagaacccag tttcatcctt
                                                                      420
gtaggttttt ccgaagcagg atttgcacaa gtggcgtgtt ttcttaagta tttattttgc
                                                                      480
aggccattta ctcggcatgg ctattttac agtgggtaag gagcaaggct aaaaataact
                                                                     540
                                                                      600
tagctcataa ccagacaggt tctgcatttg acatttacgt ggaattcatt tgcatctcat
                                                                      660
ttgttcgcct ttctgtttaa caggtagaat gtaagaaagc tcagccgaaa gaagtcatgt
                                                                      720
tcccacctgg gacaagaggc cgggcccggg gactgcctta caccatggac gcgttcatgc
ttggcatggg gatgctgggt gagtctggac aggaccgcag gtcaccatgg actgggaggg
                                                                     780
ctatggaggc ctctactccc aactgggtca cctaccagtg gggcaaactg cttcaccttt
                                                                      840
                                                                      900
ctaagcctca gtttccttgt ctgtagatga ggatgataat tccccgttcc aagacagttg
                                                                     960
tgatgattaa gtgtgggtgt gtgtgtgtgc atgcatgtgt gtgtgtgtgt gtgtgttgt
atttataata ttgccccatg cctggcttat aggatatgtt agactatttt ctctcttttc
                                                                     1020
catctccttc ctcaaaagaa ggaaaagtcc ccctctattg cctcagccct ctcatctgag
                                                                     1080
tgggagttct taagatgtaa ggactcctgg ctgacttgac ttgtgtgggc taaggctacg
                                                                     1140
ttttctaaaa ctkgggagag gagggaagtg gtaagggtgg gcgataatcc tgtctattta
                                                                     1200
                                                                     1240
aatgattaac atttttctct tgggntatca aaatttgcat
<210> 181
<211> 997
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (963)..(963)
<223> n equals a,t,g, or c
<400> 181
                                                                        60
cccgactcta ggccggaagc gcgcggagac catgtagtga gaccctcgcg aggtctgaga
                                                                      120
gtcactggag ctaccagaag catcatgggg ccctggggag agccagagct cctggtgtgg
                                                                      180
cgccccgagg cggtagcttc agagcctcca gtgcctgtgg ggctggaggt gaagttgggg
gccctggtgc tgctgctggt gctcaccctc ctctgcagcc tggtgcccat ctgtgtgctg
                                                                      240
cgccggccag gagctaacca tgaaggctca gcttcccgcc agaaagccct gagcctagta
                                                                      300
agetgtttcg cggggggcgt ctttttggcc acttgtctcc tggacctgct gcctgactac
                                                                      360
ctggctgcca tagatgaggc cctggcagcc ttgcacgtga cgctccagttcccactgcaa
                                                                     420
gagttcatcc tggccatggg cttcttcctg gtcctggtga tggagcagat cacactggct
                                                                       480
                                                                       540
tacaaggagc agtcagggcc gtcacctctg gaggaaacaa gggctctgct gggaacagtg
                                                                       600
aatggtgggc cgcagcattg gcatgatggg ccaggggtcc cacaggcgag tggagcccca
                                                                      660
gcaacccct cagccttgcg tgcctgtgta ctggtgttct ccctggccct ccactccgtg
ttcgaggggc tggcggtagg gctgcagcga gaccgggctc gggccatgga gctgtgcctg
                                                                       720
gctttgctgc tccacaaggg catcctggct gtcagcctgt ccctgcggct gttgcagagc
                                                                       780
caccttaggg cacaggtggt ggctggctgt gggatcctct tctatgcat gacacctcta
                                                                      840
                                                                       900
ggcatcgggc tgggtgcagc tctggcagag tcggcaggac ctctgcacca gctggcccag
tctgtgctag agggcatggc agctggcacc tttytytata tcacctttyt ggaaatcctg
                                                                       960
                                                                       997
ctntttcatc ccaaatttaa gggggtttca agaagaa
<210> 182
```

## <213> Homo sapiens

```
<400> 182
gctgagtgtg agctgagcct gccccaccac caagatgatc ctgagcttgc tgttcagcct
                                                                       60
                                                                      120
tgggggcccc ctgggctggg ggctgctggg ggcatgggcc caggcttcca gtactagcct
                                                                     180
ctctgatctg cagageteca ggacacetgg ggtctggaag gegaggetg aggacaceag
                                                                      240
caaggacccc gttggacgta actggtgccc ctacccaatg tccaagctgg tcaccttact
                                                                      300
agetetttge aaaacagaga aatteeteat ceactegeag eageegtgte egeaggaget
ccagactgcc agaaagtcaa agtcatgtac cgcatggccc acaagccagt gtaccaggtc
                                                                      360
aagcagaagg tgctgacctc tttggcctgg aggtgctgcc ctggctacac gggccccaac
                                                                      420
tgcgagcacc acgattccat ggcaatccct gagcctgcag atcctggtga cagccaccag
                                                                      480
gaacctcagg atggaccagt cagcttcaaa cctggccacc ttgctgcagt gatcaatgag
                                                                      540
                                                                     600
gttgaggtgc aacaggaaca gcaggaacat ctgctggag atctccagaa tgatgtgcac
                                                                      660
cgggtggcag acagcctgcc aggcctgtgg aaagccctgc ctggtaacct cacagctgca
                                                                      720
gtgatggaag caaatcaaac agggcacgaa gttccctgat agatccttgg agcaggtgct
                                                                      780
qctaccccac gtggacacct tcctacaagt gcatttcagc cccatctgga ggagctttaa
ccaaagcctg cacagcctta cccaggccat aagaaacctg tctcttgacg tggaggccaa
                                                                      840
ccgccaggcc atctccagag tccaggacag tgccgtggcc agggctgact tccaggagct
                                                                      900
tggtgccaaa tttgaggcca aggtccagga gaacactcag agagtgggtc agctgcgaca
                                                                      960
ggacgtggag gaacgcctgc acgcccagca c#taccctg caccgctcga tctcagagct
                                                                    1020
ccaagccgat gtggacacca aattgaagag gctgcacaag gctcaggagg ccccagggac
                                                                     1080
                                                                     1140
caatggcagt ctggtgttgg caacgcctgg ggctggggca aggcctgagc cggacagcct
gcaggccagg ctgggccagc tgcagaggaa cctctcagag ctgcacatga ccacggcccg
                                                                     2100
                                                                     1260
cagggaggag gagttgcagt acaccctgga ggacatgagg gccaccctga cccggcacgt
qqatqaqatc aaqqaactgt actccgaatc ggacgagact ttcgatcaga ttagcaaggt
                                                                     1320
                                                                     1380
ggagcggcag gtggaggagc tgcaggtgaa ccacacggcg ctccgtgagc tgcgcgtgat
                                                                     1440
cctgatggag aagtctctga tcatggægga gaacaaggag gaggtggagc ggcagctcct
                                                                     1500
ggagctcaac ctcacgctgc agcacctgca gggtggccat gccgacctca tcaagtacgt
                                                                     1560
qaaqqactqc aattqccaga agctctattt agacctggac gtcatccggg agggccagag
                                                                    1620
ggacgccacg cgtgccctgg aggagaccca ggtgagcctg gacgagcggc ggcagctgga
cggctcctcc ctgcaggccc tgcagaacgc cgtggacgcc gtgtcgctgg ccgtggacgc
                                                                     1680
                                                                     1740
gcacaaagcg gagggcgagc gggcgcgggc ggccacgtcg cggctccgga gccaagtgca
ggcgctggat gacgaggtgg gcgcgctgaa
                                                                     1770
<210> 183
<211> 1167
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (432)..(432)
<223> n equals a,t,g, or c
<400> 183
                                                                       60
gggggtgggg caggcgacgg tggggaagat ggcgtaccag agcttgcggc tggagtacct
                                                                     120
gcagatecea eeggteagee gegeetaeae eactgeetge gteeteacea eegegeegt
gcagttggaa ttgatcacac cttttcagtt gtacttcaat cctgaattaa tctttaaaca
                                                                      180
                                                                      240
ctttcaaata tggagattaa tcaccaactt cttatttttt gggccagttg gattcaattt
tttatttaac atgattttc tatatcgtta ctgtcgaatg ctagaagaag gctctttccg
                                                                      300
                                                                      360
aggtcggaca gcagactttg tatttatgtt cctttttggt ggattcttaa tgaccctttt
tggtctgttt gtgagcttag ttttcttggg ccaggccttt acaataatgc tcgtctatgt
                                                                      420
                                                                      480
gtggagccga angaacccct atgtccgcat gaacttcttc ggccttctca acttccaggc
                                                                     540
cccctttctg ccctgggtgc tcatgggatt ttccttgttg ttggggaat caatcattgt
                                                                       600
ggaccttttg ggtattgcag ttggacacat atattttttc ttggaagatg tatttcccaa
tcaacctggt ggaataagaa ttctgaaaac accatctatt ttgaaagcta tttttgatac
                                                                       660
                                                                      720
accagatgag gatccaaatt acaatccact acctgaggaa cggccaggag gcttcgcctg
```

```
gggtgagggc cagcggcttg gaggttaaag cagcagtgcc aataatgaga cccagctggg
                                                                     780
                                                                      840
aaggactcgg tgatacccac tgggatcttt tatcctttgt tgcaaaagtg tggacacttt
                                                                      900
tqacaqcttg gcagatttta actccagaag cactttatga aatggtacac tgactaatcc
                                                                     960
agaagacatt tocaacagtt tgccagtggt toctcactac actgtactg aaagtgtaat
                                                                     1020
ttcttagagc caraaaactg gagaaacaaa tatcctgcca cctctaacaa gtacatgagt
                                                                     1080
acttgatttt tatggtataa gcagagcctt ttcttcctct tcttgataga tgaggccatg
gtgtaaatgg aagtttcaga gaggacaaaa taaaacggaa ttccattttt ctctcactgt
                                                                     1140
                                                                     1167
aaaaaaaaa aaaaaaaggg cggccgc
<210> 184
<211> 1618
<212> DNA
<213> Homo sapiens
<400> 184
                                                                       60
ccacgcgtcc gcaaggagcc agaggccatg cagtggctca gggtccgtga gtcgcctggg
qaqqccacag gacacagggt caccatgggg acagccgccc tggtcccgt ctgggcagcg
                                                                     120
                                                                      180
ctcctgctct ttctcctgat gtgtgagatc cctatggtgg agctcacctt tgacagagct
gtggccagcg actgccaacg gtgctgtgac tctgaggacc ccctggatcc tgcccatgta
                                                                      240
                                                                      300
tecteageet ettecteegg eegeeeceae geeetgeetg agateagace etacattaat
atcaccatcc tgaagggtga caaaggggac ccaggcccaa tgggcctgcc agggtacatg
                                                                      360
ggcagggagg gtccccaagg ggagcctggc cctcagggca gcaagggtga caagggggag
                                                                      420
                                                                      480
atgggcagcc ccggcgccc gtgccagaag cgcttcttcg ccttctcagt gggccgcaag
acggccctgc acagcggcga ggacttccag acgctg&ct tcgaaagggt ctttgtgaac
                                                                     540
                                                                      600
cttgatgggt gctttgacat ggcgaccggc cagtttgctg ctcccctgcg tggcatctac
                                                                      660
ttcttcagcc tcaatgtgca cagctggaat tacaaggaga cgtacgtgca cattatgcat
                                                                      720
aaccagaaag aggctgtcat cctgtacgcg cagcccagcg agcgcagcat catgcagagc
                                                                      780
cagagtgtga tgctggacct ggcctacggg gaccgcgtct gggtgcggct cttcaagcgc
                                                                      840
cagcgcgaga acgccatcta cagcaacgac ttcgacacct acatcacctt cagcggccac
ctcatcaagg ccgaggacga ctgagggcct ctgggccacc ctcccggctg gagagctcag
                                                                      900
                                                                     960
ctgatacggc atcctgcgag aagacctgcc &cctcactg ggatcccctt cctgcctcct
cccagggctc tgccagggcc ttgctcagtc ccttccacca aagtcatctg aacttccgtt
                                                                     1020
tcccagggcc tccagctgcc ctcagacact gatgtctgtc cccaggtgct ctctgcccct
                                                                     1080
catgcccctc tcaccggccc agtgccccga ctctccaggc tttatcaagg tgctaaggcc 1140
cgggtgggca gctcctcgtc tcagagccct cctccggcct ggtgctgcct ttacaaacac
                                                                     1200
                                                                     1260
ctgcaggaga agggccacgg aagccccagg ctttagagcc ctcagcaggt ctggggagct
                                                                     1320
agagcaaagg agggacctca ggccttccgt ttcttcttcc agggtggggt ggcctggtgt
tcccctagcc ttccaaaccc aggtggctg cccttctccc cagagggagg cggcctccgc
                                                                     1380
ccattggtgc tcatgcagac tctggggctg aggtgccccg gggggtgatc tctggtgctc
                                                                     1440
acagtcgagg gagccgtggc tccatggcca gatgacggaa acagggtctg accaagtgcc
                                                                     1500
aggaagacct gtgctataaa ccaccctgcc tgatcctgcc cctgcctgac cccgccagc
                                                                    1560
                                                                     1618
cctgccgtcc agcatgatta aagaatgctg tctcctcttg gaaaaaaaaa aaaaaaaa
<210> 185
<211> 1338
<212> DNA
<213> Homo sapiens
<400> 185
cccacgcgtc cggttccccc atctgtctct caggagcgag atctgatcgc tgaatttgcc
                                                                       60
                                                                      120
caagtcacaa attggtccag ctgctgcttg cgtgtctttg catggcaccc ccacaccaac
aagtttgcag tggccctgct agatgactca gtccgtgtgt ataatgccag cagcaccata
                                                                      180
                                                                      240
gtcccctccc tgaagcaccg gctgcagcga aatgtggcgt ctctggcctg gaagcccctt
                                                                     300
agtgcctctg tcttggctgt ggcctgccag agctgcattc ttatctggac cctggacct
                                                                      360
acctccttgt ctacccgacc ctcttctggc tgtgcccaag tgctgtctca ccctgggcat
                                                                      420
acacctqtta ccagcttggc ctgggccccc agtggggggc ggctgctctc agcttcaccg
                                                                      480
tggatgctgc tatccgggta tgggatgtct caacagagac ctgtgtcccc cttccctggt
```

```
ttcgaggagg tggggtgacc aactgctctg gtccccagac ggcagcaaaa tcctggctac
                                                                540
                                                                 600
cactccttca gctgtctttc gagtctggga ggcccagatg tggacttgtg agaggtggcc
tactctatca gggcgctgtc agactggctg ctggagccca gatggcagcc gactgctgtt
                                                                 660
cactgtattg ggagagccac tgatttactc cctgtctttt ccagaacgttgtggtgaggg
                                                                720
                                                                 780
aaaggggtgc gttggaggtg caaagtcagc aacgattgtg gcagatctgt ctgagacaac
                                                                 840
aatacagaca ccagatggtg aggagaggct tgggggagag gctcactcca tggtctggga
                                                                 900
accagtcate etectitie geactegaaa cagecetgtg titgagetee ticeetgtgg
                                                                 960
                                                                1020
cattatecag ggggagecag gageceagee ceageteate actttecate tteetteaae
aaaggggccc tgctcagtgt gggctggtcc acaggccgaa ttgcccacat cccgctgtac
                                                                1080
tttgtcaatg cccagtttcc acgttttagc ccagtgcttg ggcggccca ggaaccccct
                                                               1140
                                                                1200
gctgggggtg gaggctctat tcatgacctg cccctcttta ctgagacatc cccaacctct
gccccttggg accctctccc agggccacca cctgttctgc cccactcccc acattcccac
                                                                1260
1320
                                                                1338
aaaaaaaaa aaaaaaaa
<210> 186
<211> 813
<212> DNA
<213> Homo sapiens
<400> 186
                                                                  60
gaagaaggta cgctgcaggt accggtccgg aattcccggg tcgacccacg cgtccgccaa
                                                                120
aagcagacat agcttcagat gcagcttgat ccagggctca gatgcatga tcagaatcca
                                                                 180
attettgcat etgtttettt gggttggett catttteagg eageeceett ceteatatee
tcaagatggc agagacagcc catggtcttt cccttgcaga gacagatcac caggaaacaa
                                                                 240
tacctctatc cctagccatq aaacaqtctt gaactttatt ctgacttgat cagccaagtc
                                                                 300
cctgttggaa ccatcactgc ctagcttagg cctgagacag tgctgcacct ctactaccaa
                                                                 360
                                                                 420
aggccgggct ggccttccct aaagtgtatg tgctgcgtgg gggagaggta cggatctgaa
                                                                 480
ccaaaacgag ggctgtccag cgtcagcaaa tatctcccgc agtcccagtg cctccagcag
                                                                540
gaggcaaagc atcaacccct ccgtctggct cctctactgaaaattccctc agcagcctca
                                                                 600
caggeettag gettgtetta getaettett catetaettt tttgetttet taattattt
tettttettt tttettattt tattttattt tattttagat ggagtttege teegtegee
                                                                 660
aggctgaagt gcagtggcgt gatcttggct cgttgcaacc tccacctccc gggttcagga
                                                                 720
                                                                 780
gaatcgcttg agccccagga ggcggaggtt gtgggaagcc aagatcgcac cactgcactc
                                                                 813
cagcctgggc aacaagagca gaacgccatc tca
<210> 187
<211> 2081
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (538)..(538)
<223> n equals a,t,g, or c
<400> 187
gggttctcaa tggaaaaata ttggtagaca tcagcaacaa cctcaaaatc aatcaatatc
                                                                  60
cagaatctaa tgcagagtac cttgctcatt tggtgccagg agcccacgtg gtaaaagcat
                                                                 120
ttaacaccat ctcagcctgg gctctccagt caggagcact ggatgcaagt cggcaggtgt
                                                                 180
                                                                 240
ttgtgtgtgg aaatgacagc aaagccaagc aaagagtgat ggatattgtt cgtaatcttg
                                                                 300
gacttactcc aatggatcaa ggatcactca tggcagccaa agaaattgaa aagtaccccc
360
                                                                420
tgtttttcta ttgtgttata agagacgtaatctaccctta tgtttatgaa aagaaagata
atacatttcg tatggctatt tccattccaa atcgtatctt tccaataaca gcacttacac
                                                                 480
tgcttgcttt ggtttactcc ctggtgttat tgctgccatt ctacaactgt accgaggnca
                                                                 540
```

```
caaaataccg tcgattccca gactggcttg accactggat gctttgccga aagcagcttg
                                                                    600
gcttggtagc tctgggattt gccttccttc awgtcctctm cmcacttgtg attcctattc
                                                                      660
                                                                      720
gatattatgt acgatgraga ttgggaaact taaccgttac ccagscaata ctcaagaagg
                                                                      780
agaatccatt tagcacytcy tcagcctggc tcagtgattc atatgtggct ttgggaatac
                                                                     840
ttqqqttttt tctgtttgta ctcttgggaa tcacttcttt gccatctgtt agcaatgcag
                                                                      900
tcaactggag agagttccga tttgtccagt ccaaactggg ttatttgacc ctgatcttgt
gtacagecea caeeetggtg taeggtggga agagatteet cageeettea aateteagat
                                                                      960
ggtatcttcc tgcagcctac gtgttagggc ttatcattcc ttgcactgtg ctggtagtca
                                                                    1020
agtttgtcct aatcatgcca tgtgtagaca acaccettac aaggateege agggetggga
                                                                     1080
aaggaactca aaacactaga aaaagcattg aatggaaaat caatatttaa aacaaagttc
                                                                     1140
aatttagctg gatttctgaa ctatggtttt gaatgtttaa agaagaatga tgggtacagt
                                                                     1200
taggaaagtt tttttcttac accgtgactg agggaaacat tgcttgtctt tgagaaattg
                                                                    1260
                                                                     1320
actgacatac tggaagagaa caccatttta tctcaggtta gtgaagaatc agtgcaggtc
                                                                     1380
cctgactctt attttcccag aggccatgga gctgagattg agactagcct tgtggtttca
                                                                    1440
cactaaagag tttccttgtt atgggcaaca tgcatgacct aatgtcttgcaaaatccaat
                                                                     1500
agaagtattg cagcttcctt ctctggctca agggctgagt taagtgaaag gaaaaacagc
acaatggtga ccactgataa aggctttatt aggtatatct gaggaagtgg gtcacatgaa
                                                                     1560
atgtaaaaag ggaatgaggt ttttgttgtt ttttggaagt aaaggcaaac ataaatatta
                                                                     1620
ccatgatgaa ttctagtgaa atgacccctt gactttgctt ttcttaatac agatatttac
                                                                     1680
tgagaggaac tatttttata acacaagaaa aatttacaat tgattaaaag tatccatgtc
                                                                     1740
ttggatacat acgtatctat agagctggca tgtaattctt cctctataaa gaataggtat
                                                                     1800
aggaaagact gaataaaaat ggagggatat ccccttggat ttcactgca ttgtgcaata
                                                                    1860
agcaaagaag ggttgataaa agttcttgat caaaaagttc aaagaaacca gaattttaga
                                                                     1920
cagcaagcta aataaatatt gtaaaattgc actatattag gttaagtatt atttaggtat
                                                                     1980
                                                                     2040
tataatatgc tttgtaaatt ttatattcca aatattgctc aatatttttc atctattaaa
                                                                     2081
ttaatttcta qtqtaaaaaa aaaaaaaaa agggcggccg C
<210> 188
<211> 312
<212> DNA
<213> Homo sapiens
<400> 188
aattcccggg tcgacccacg cgtccgtgat gagtggattt gtactcttac ccaggtcctg
                                                                       60
                                                                     120
agggccagcc cacccagcat coccaccct gatgacgctg tcccacaac tggctgaact
ggtgcatttt gtgtgtgcct tccagagcca gtggactggt gtgtatccaa tgatgccacc
                                                                      180
tctgaaacct acagaaccac tatgctttgc atgtgtaccc tgcagggtct gagggccagg
                                                                      240
                                                                      300
ctgtctggta gctctgctcc tgggtgacag agcaagactc tgtctcaaaa aaaaaaaaa
                                                                      312
agggcggccg ct
<210> 189
<211> 864
<212> DNA
<213> Homo sapiens
<400> 189
                                                                        60
ggcacgagcg gaccgggccc gcggggctgc tgcggggcga tcgggccggg ccgctgccgc
gccatggact cccgtgtcca gcctgagttc cagcctcact gagtgccac ccccaaagtg
                                                                     120
                                                                      180
ctgccagccg aggaagcccc cagcactgac catgtctatt atggaccaca gccccaccac
gggcgtggtc acagtcatcg tcatcctcat tgccatcgcg gccctggggg cctttgatcc
                                                                       240
                                                                       300
tgggctgctg gtgctacctg cggctgcagc gcatcagcca gtcagaggac gaggagagca
                                                                      360
tcgtggggga tgggggagacc aaggaaccct tcctgctggt gcagtattcg gccaarggac
                                                                       420
cgtgcgtgga gagaaaggcc aagctgatka mtcccaaacg gsccggaart ycacggstga
vccaggatgc aaaggccycc tggtccctgt ttgcaagccg gccaagargg ggctgggagg
                                                                       480
                                                                      540
ggcaaaamcc atacggatgc gctgctgtct gagaggaagggctgacactt gctggcatgg
                                                                       600
cctctgcggg tttcgtccat cgcatgcact gatgcccggg gacttggctg tcctgggctt
cccctcggcc tccaggtgag gctgcccatt gcaggcactg ggtaggcctg accttgctgg
                                                                       660
```

```
ggctcatggc cctgtagcgc ttttgttact tgaatgtcta gctgagcctg tttttgatgg
                                                                     720
agctactact gtaatgcgtg aactaacaaa cctgtgaact gtaaataggc ccctggaagc
                                                                     780
acgtgcttaa gcccttttgc tgatttttaa aaatatcatc tagcgcaaaa aaaaaaaaa
                                                                     840
aaaaaaaaa aaaaaaaaaa aaaa
                                                                     864
<210> 190
<211> 1267
<212> DNA
<213> Homo sapiens
<400> 190
ggcacgagct gcaggggggg ggcggcgcca agcgcaggga gcccggctga gtggcagccc
                                                                      60
agattgaaga tggatacgtg acaatcccag ggaccgctgc actgacttca tttccttaga
                                                                     120
caagacacag tgtagggccc ggcccgtgtt ggccccagga ctcctttgga atatagctgt
                                                                     180
ggacaatgaa teetgegage gatgggggea eateagagag catttttgae etggaetatg
                                                                     240
catcctgggg gatccgctcc acgctgatgg tcgctggctt tgtcttctac ttgggcgtct
                                                                     300
ttgtggtctg ccaccagctg tcctcttccc tgaatgccac ttaccgttct ttggtggcca
                                                                     360
gagagaaggt cttctgggac ctggcggcca cggtgcagt ctttggtgtt cagagcacag
                                                                    420
ccgcagctgt gggctctgct gggggaccct gtgctgcatg ccgacaaggc gcgtggccag
                                                                     480
cagaactggt gctggtttca catcacgaca gcaacgggat tcttttgctt tgaaaatgtt
                                                                     540
gcagtccacc tgtccaactt gatcttccgg acatttgact tgtttctggt tatccaccat
                                                                    (RO
ctctttgcct ttcttgggtt tcttggctgc ttggtcaatc tccaagctgg ccactatcta
                                                                     660
gctatgacca cgttgctcct ggagatgagc acgcccttta cctgcgtttc ctggatgctc
                                                                    720
ttaaaggegg getggteega gtetetgttt tggaagetea aceagtgget gatgatteae
                                                                    780
atgtttcact gccgcatggt tctaacctac cacatgtggt gggtgtgttt ctggcactgg
                                                                    840
gacggcctgg tcagcagcct gtatctgcct catttgacac tgttccttgt cggactggct
                                                                     900
ctgcttacgc taatcattaa tccatattgg acccataaga agactcagca gcttctcaat
                                                                     960
ccggtggact ggaacttcgc acagccagaa gccaagagca ggccagaagg caacgggc\mathfrak{g}
                                                                  1020
ctgctgcgga agaagaggcc atagctgctc cagccggggc tccggggcgg cagcagagct
                                                                    1080
ggcacaccga ttctgggaag ccccgcgaat gatggctttt gaattaatga ggcagtgaat
                                                                    1140
gttttgtgtt tacttctaag ggaaatacta actttctttc gcattagtat taattttgaa
                                                                   1200
1260
aaaaaaa
                                                                   1267
<210> 191
<211> 1258
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1196)..(1196)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1200)..(1200)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1237)..(1237)
```

<213> Homo sapiens

```
<400> 191
                                                                       60
nagatqqcqc tacqtctqct gcggaggqcg gcgcgcggag ctgcggcggc ggcgctgctg
                                                                      120
aggctgaaag cgtctctagc agctgatatc cccagacttg gatatagttc ctcatcccat
                                                                      180
cacaagtaca tcccccggag ggcagtgctt tatgtacctg gaaatgatga aaagaaaata
                                                                     240
aagaagattc catccctgaa tgtagattgt gcagtgctcgactgtgagga tggagtggct
gcaaacaaaa agaatgaagc tcgactgaga attgtaaaaa ctcttgaaga cattgatctg
                                                                      300
ggccctactg aaaaatgtgt gagagtcaac tcagtttcca gtggtctggc ggaagaagac
                                                                      360
ctagagaccc ttttgcaatc ccgggtcctt ccttccagcc tgatgctacc aaaggtggaa
                                                                      420
agtcctgaag aaatccagtg gtttgcagac aaattttcat tccacttaaa aggccgaaaa
                                                                      480
                                                                      540
cttgaacaac caatgaattt aatccctttt gtggaaactg caatgggttt gctcaatttt
                                                                      600
aaggcagtgt gtgaagaaac cctgaaggtc gggcctcaag taggtctctt tctagatgca
gtcgtttttg gaggagaaga ctttcgagcc agc&aggtg caacaagtag taaagaaacc
                                                                     660
                                                                      720
ctggatattc tctacgcccg gcaaaagatt gttgtcatag cgaaagcctt tggtctccaa
                                                                      780
qccqtaqatc tggtgtacat tgactttcga gatggagctg ggctgcttag acagtcacga
gaaggagccg ccatgggctt cactggtaag caggtgattc accctaacca aattgccgtg
                                                                      804
                                                                      900
gtccaggagc agttttctcc ttcccctgaa aaaattaagt gggctgaaga actgattgct
gcctttaaag aacatcaaca attaggaaag ggggccttta ctttccaagg gagtatgatc
                                                                      960
gacatgccat tactgaagca ggcccagaac actgttacgc ttgccacctc catcaaggaa
                                                                     1020
aaatgatctg ttaaatgaag ctgtcatcæg gctaaagggt attgaagctg cagagggatc
                                                                     1080
aacttgtgct tgccagagga cgccaatgaa gtttgaaaca ccaacaatca gagattttgt
                                                                     1140
ttctgttcct cattaaatca tgagcttttg tgcccgagac tctggacgga ctgttncttn
                                                                     1200
aggaatttaa ccggatggga agtttttaa acttttncaa ccaacttttt taaggccc
                                                                    1258
<210> 192
<211> 883
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (19)..(19)
<223> n equals a,t,g, or c
<400> 192
                                                                       60
gtcaccgtgg gcgtttaant atgatccccg gctcagattc gcagactgca ctgaacttcg
                                                                      120
gctctacgtt gatgaagaag aagtctg&c ctgagggtcc cgcgctgctc ttccctgaga
gtgaactttc catccggata ggtagagctg ggcttctttc agacaagagt gagaatggtg
                                                                      180
aggcatatca gagaaagaag gcggcagcca ctggccttcc agagggtcct gctgtccctg
                                                                       240
tgccttctcg agggaatctg gcacagcccg gcggcagcag ctggaggagg atcgcactg
                                                                     300
tcatcttggc catcactata cacaacgttc cagagggtct cgctgttgga gttggatttg
                                                                       360
gggctataga aaagacggca tctgctacct ttgagagtgc caggaatttg gccattggaa
                                                                       420
tcgggatcca gaatttcccc gagggcctgg ctgtcagcct tcccttgcga ggggcaggct
                                                                       480
                                                                      540
tctccacctg gagagctttc tggtatgggc agctgagcgg catggtggag cccctggccg
                                                                       600
gggtctttgg tgcctttgcc gtggtgctgg ctgagcccat cctgccctac gctctggcct
                                                                       660
ttgctgccgg tgccatggtc tacgtggtca tggacgacat catccccgaa gcccagatca
                                                                     720
gtggtaatgg gaaactggca tcctgggcct ccatcctggg atttgtagtg atggtcac
                                                                       780
tggacgttgg cctgggctag ggctgagacg cttcggaccc cgggaaaggc catacgaaga
                                                                       840
aacagcagtg gttggcttct atgggacaac aagcttcttt cttcacatta aaactttttt
                                                                       883
ccktcctctc ttcttcaaaa aaaaaaaaaa aaaaaaactc gag
<210> 193
<211> 1465
<212> DNA
```

```
<400> 193
                                                                       60
ggcacgagcg agccaagttt gcaccactgc actccagcct gggcgacaga gcaagactca
                                                                      120
gtctcgaaaa aaaaaaagtt ggaagcagaa gtaaaaaaca tggtaaagaa tgagaactaa
ataaatataa taattgagag gtctgcatta gatgtggcag ggagaacaag caaaagaga
                                                                     180
                                                                      240
tttcagagaa gatcactgga attggcagag gccttgaagg gcagagtcta gcatacagaa
                                                                      300
gatgtaaagc cacattctgt gaaggtaagt agatgtgttt acctcttttg cactgtactg
                                                                      360
gtgcattatg gggtaaatrt gtattacttt tcctgtattg cttagcacag agttttgcct
                                                                      420
atagcaggca ccagactgtg ggcttggtag tacatgacta ttggtgatta cagatcaaaa
aggacttgaa atgatcagtt taaggtcttg atgggtattg aagactcaaa ggatgatggc
                                                                      480
accctgggag tgatccacag aaggacagat tatttgaaga tgttaataac taaagacaac
                                                                      540
atggatgtta aatgatgaaa aaaagttgga tggaaaataa accattgat ctgcytctgg
                                                                     600
agtccaagaa gaatattatt cttcctacct cccccttact ctggctcttc ctattgtagc
                                                                      660
cacatgggtc agtaatgcca ttgaaaaaca aaattttaga ctaagtgggg tcgcagaaat
                                                                      720
                                                                      780
tttggtctat cttaaattga tgacatctta ttaaagaaty tattgtataa agtgtgctta
                                                                      840
ttctggcatt tttttaatga agaaaaagtg taattcagtg cacatttatg aatttcaaag
atcaataaaa atgggcaaag tatatgaacg cataatccat agaagaagat atctgacaaa
                                                                      900
tgcagttcaa taaatattt tttaaataaa aattagcctg tggtaagaat tgaaatggag
                                                                      960
aaagaaatag aaggtagcca ggttacctac agctttgtat &gacactat agagctagga
                                                                    1020
                                                                     1080
ctttattcca tagatgaggg aagtctgcta aagtgtctac attgaaccca ttattttgct
                                                                     1140
agcattgtag ttgatgtacc taaaacagac ttgagccggt agagtaagta ggcagacttg
                                                                     1200
tccaagtgag aaaaagatga aactgtggtg aggataaaga gagaaaagga gcagatttaa
gaaatattaa aacttgaaag tactaagact tgatgatgaa ctagatgtgt tagataagag
                                                                     1260
atagcatgga gtctagtaaa agttctgttt ttctcactcg tgtgactgcc tcaataacac
                                                                     1320
aaagcttgat aggaaataaa catgagatag cacatggatc tattacaagt ttttgaaatt
                                                                     1380
                                                                     1440
gagettgaaa agetaettea aaaaataaat tetaggeag gtgtgagyee atgegettga
                                                                     1465
ttaaaaaaaa aaaaaaaaac tcgta
<210> 194
<211> 996
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (834)..(834)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (996)..(996)
<223> n equals a,t,g, or c
<400> 194
                                                                        60
gaattcggca gagggaatct gggctctgtg gaagaatagc acttatctgg attctggcct
                                                                       120
tgtgccatga acctaaagca catccgtttg gtctgccagt aggctggtat ggcatgctgt
aacccctata aatattattt ctatttatcctgctcagtgt gtttcctgta acaaatcgtt
                                                                      180
caagaaactc tggtcccttc atgaacatat caagatcgtc catggatatg cagaaaagaa
                                                                       240
                                                                       300
attttcctgt gaaatttgtg agaagaaatt ctataccatg gctcatgtgc ggaaacacat
ggttgcacac acaaaagaca tgccattaca tgcgaaacct gtggaaaatc attcaaacgc
                                                                     360
                                                                       420
atatgtcact caaggtgcac tccktgcagc attctrgaga gaagcccttt agatgcgaga
                                                                       480
actgtgacga aaggtttcag tacaagtacc agctacgctc ccacatgagc attcatattg
                                                                       540
ggcacaaaca gttcatgtgc cagtggtgtg gcaaggattt caacatgaag cagtacttcg
                                                                      600
acgaacacat gaaaacacac actggagaga aaccctttat ctgtgaaatc tgtggcaaaa
                                                                       660
gcttcaccag ccgccccaac atgaagagac accgcagaac tcacacaggc gagaagccct
atccatgtga tgtgtgtggc cagcggttcc gcttctcgaa catgcttaag gcccacaagg
                                                                       720
agaagtgctt tcgggtgacc agccccgtgg aatgtgccac ctgctgtcca gatccæctt
                                                                      780
                                                                       840
 acaacttccc cagccacccc agttccttct gtggtgaaca cagccacaac cccnaccctc
```

```
caatcaatat gaatcctgta agcactcttc ccctcgggcc atcccccacc ccttctcaca
                                                                   900
                                                                   960
ccgcacatcc acccacaccc tcaccaccca caccamette ccatecetee akteceteae
                                                                   996
ctcccgccac ctccagctct ctttaagagt gagccn
<210> 195
<211> 413
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (248)..(248)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (328)..(328)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (357)..(357)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (372)..(372)
<223> n equals a,t,g, or c
<400> 195
                                                                     60
nggcccattc gctgttgggt cttctgctag ggaggatgtc gggttcgtcg ctgcccaggg
                                                                    120
agaacgtgaa gagtacaatc tggacaggat cagaagtaga gaatgaagtt gtaaagagaa
                                                                    180
aggggaaaga cagaagaaag gctgcagtag tacaaggagaaaagcaggat gcaagattga
                                                                   240
                                                                    300
aggaatgnaa totttgtttg aggagcatto oggaaaatta taagotgtto agaaagggtt
aattagacca gggacctttt aagttaantt cacactcaaa gttaaaataa tgttggngat
                                                                    360
                                                                    413
tcactcctgt gnaaaattgg gttagttttc atttgccctt ttaaacaaaa ctt
<210> 196
<211> 1369
<212> DNA
<213> Homo sapiens
<400> 196
cccacgcgtc cgcccacgcg tccggctggc aagatggcgg gaggggtgcg cccgctgmgg
                                                                     60
ggcctccgcg ccttgtgtcg cgtgctgctc ttcctctcgc agttctgcat tctgtcgggc
                                                                    120
                                                                    180
ggtgaaagta ctgaaatccc accttatgtg atgaagtgtccgagcaatgg tttgtgtagc
                                                                     240
aggetteetg cagactgtat agactgeaca acaaatttet eetgtaeeta tgggaageet
                                                                     300
gtcacttttg actgtgcagt gaaaccatct gttacctgtg ttgatcaaga cttcaaatcc
caaaagaact tcatcattaa catgacttgc agattttgct ggcagcttcc tgaaacagat
                                                                     360
tacgagtgta ccaactccac cagctgcatg acggtgtcct gtcctcggca gcgctaccct
                                                                     420
gccaactgca cggtgcggga ccacgtccac tgcttgggta accgtacttt tcccaaaatg
                                                                     480
```

```
ctatattgca attggactgg aggctataag tggtctacgg ctctggctct aagcatcacc
                                                                    540
                                                                   600
ctcqqtqqqt ttqqaqcaqa ccqtttctac ctqqccagt qgsqggaagg cctcggcaag
                                                                    660
ctcttcagct tcggtggcct gggaatatgg acqctgatag acgtcctgct cattggagtt
qqctatqttq qaccaqcaga tqqctctttq tacatttagc tqtggtgtgt gcttcagaaa
                                                                    720
                                                                    708
qqaqcaqqqc ttaqaaaaaq cccttttgtc cgtaqagttg atgtggtgtg agtgatatat
                                                                    840
ttctatgttt ttaatgtaca gcatctgtac tttgtttgcc ttgataaagg taagataaat
gaaacgctga actatgctaa tctggaattt gtttttattt gcctgaaata tattttttc
                                                                    900
tgtgaaaaaa ttaaaacgta cttaagccag gagaatgaat tatacagtga ttgaaaatcc
                                                                    960
                                                                   1020
atttaattcc tatgactttt gttttgtatt gcccaagtca aactacatca cttgtatctc
caqcccaaat gtagtctgcc ttgaaaagtc tttcagctgt gactgcagga agtgggagtg
                                                                   1080
tttttattgt tagctaattg ctgtgactgc aggaagtggg agtgtttctg ttgttggcta
                                                                   1140
attgaagtta ttaggctcag cttcagtcat gtgtaagttt tgcagtgtaa tacatatgta 1200
gtctggtctg tatatatgaa aatttgaatt aaactgcaga atgtttatgt ctagttatgg
                                                                   1260
tttaaatttt cttagtagta tataaaaggt aagagtactg aaaaattaat aaaattgcaa
                                                                   1320
1369
<210> 197
<211> 596
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (4)..(4)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (8)..(8)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (28)..(28)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (57)..(57)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (61)..(61)
<223> n' equals a,t,g, or c
<400> 197
gganaccngc tttgcccctt ggtttccnca aagctcgaat ttaccctcac taagggnacc
naaagctgga gctcccaccg cottggcggc ccgctctaga actagtggac cccccgggct
                                                                    120
gcaggaattc ggcacgagtc ctgacctcag gtgatccacc cacctcggct tcccaaagtg
                                                                    180
ctaggattat aggettgage tactgtgeec ggeecatggt gtttttettt agggetette
                                                                    240
                                                                   300
ctacagcett gagaagtaga taggeateag agtatggtae tataggaate agaaaatte
                                                                    360
aaaacaaatg tggattaagt gtttaggctc tatgtggctc acgcagccag aatccttaag
tctgtgtgtt tctgtgtctc aagactgggc tcacattctg gctttgtcca taacaatgct
                                                                    420
ctgggatttc agggagttcc ctcatttgta aaatgagggg gtcagagcag gtgatatcca
                                                                    480
tgtttcttcc ctttctgata ttgttgtctg tggcatattc tttgtatggc gaatttaata
                                                                    540
                                                                    596
aattatatta atgtgtctct ttgaaaaaaaa aaaaaaaaa aaaaaaaaa ctcgta
```

```
<210> 198
<211> 629
<212> DNA
<213> Homo sapiens
<400> 198
ggcacgagaa cctttggggc tgacacaaga tcctttagtg tttgggatga cctttcct
                                                                      60
gcagacttct tcccctatcc ctaactcatg catggaaaac gtttgtcagg ctggtttccc
                                                                      120
                                                                      180
gagectectg caccteaaca teaegeteae cettttgggt ttageceagt gttatttage
aaatttctcc agctgcaggg aaggatcaga gcactatctt ttttttttt tttttctcct
                                                                      240
ggagccagga ctgcacægg caatggccaa atttagttga attcagccta ccatcctttg
                                                                     300
                                                                      360
ctgatgactc agctctatgc caagtactgg agccacagag atgggtcagt cccagcccct
                                                                      420
gtcctcagga agcccatggt cagggaaacg ttgtagggat aagtaataga gggcagttgc
                                                                     480
cttcagggct cctggtggct gctggtccct atggtgcctt gatgtgaat agaagacggt
                                                                      540
gccctttcca ggtggattca gacctacact agaacgcaca gctttgggag tgacacacag
                                                                      600
gttggatttt agcaccctt gccccttggc cagaggtgcc ctgctgcacg gccatacgct
                                                                      629
gcagcctcga gggacacaca ggccaaagt
<210> 199
<211> 2497
<212> DNA
<213> Homo sapiens
<400> 199
ctgagccact gtgcccagcc tcggctcagg tttttcaata cagtcttgac cttggcattc
                                                                       60
                                                                      120
agtatectea cageatggtt ctaattaact ttetagetet attteeettt teetgeteee
                                                                     180
tetetetaca actagtettt etetgattge eeegeeetea acceattaa actagaeeee
                                                                      240
agggaagcac cttggtcccc ttcctctctc ccactcacca tccaaccaat caccagagcc
                                                                      300
tgtacattet atattttcaa catcgattca attgtctact tetttetage etgecetete
                                                                      360
tgactgggac tccttgagcc agcctgatca ccccaatcca tccctcacac tgtgcccatc
                                                                      420
tttctgaagt aggaatctga tcacaccacc ctgctaaaaa cactctggtt ctccccacgg
catgtggtgc ccttgtatag ctggcaaagc cttgcatggc acggccccag cctgtgcttc
                                                                      480
                                                                      540
aactcaattg cccgactctc tccagctctg ctgagccacc taagtcacag atggtttctc
                                                                     600
ctctcatctc tgctctcttc catgtgccat ttctgtggct tggaatgttc ttccctcatt
ctctttctgg ccctttcccg tcacacctta gacgtgcatc ttcctctcga aaacctctag
                                                                      660
tgaagcctcc cagggccagg cagtaccctc ctctggcttc ttctggatac agaggaagaa
                                                                      720
                                                                      780
tctgagcatc gattctccat ctcagcaggc ctctgtgtgc ctgctgactc cgactagacc
agaqatccqt aaggacaggg atcqagtttt ttttctttta attcactqcc tcaaaaatcc
                                                                      840
totgtgcatt acctattcat cotottotot coottaacct gaaccagtga tottactgto
                                                                      900
                                                                      960
tocatcattg tittitictt tictitictt tictititit tittitgaggt ggagtotggo
                                                                    1020
tetteaccea ggetggagtg eagtgatgeg atetegete aetgeaacet ecateteetg
ggttcaagcg attetectge etcageetee ecagtagetg ggattaeagg catgegetae
                                                                     1080
catccccaac taatttttgc ctccataatt ttgccttttc tagaatgtca tacaggtgga
                                                                     1140
                                                                     1200
attactcagt atgctgcctt tttcagattg gcttctttca cttagtaata tgcttgtttt
ttgagacagg gtcttgctct gtcgcccagg ctagagtgtg gtggtgcgat cttagctcac
                                                                     1260
tgaaacctcc acctcccagg ttcaagtgac tctcctgcct cagcctcccg agtagctggg
                                                                     1320
                                                                     1380
actacaggca cgtgccacca tacccggcta atttgtggat ttttagtaca gacggggttt
                                                                    1440
cgtcatgttg gccagggtgt tgttgaattcctgacctcaa gtgatccacc tgcctcagcc
tcccaaagtg ttgcgattac aggtgtgagc cactgcgcca agcctcattt agtaatatgc
                                                                     1500
                                                                     1560
atttaaactt tctccatgtc tttaatggct tgatagctca tttattttta tcatggaata
tttcattgtc tggatggacc acagtttatt tctccattca cctactgaag gacatctcgg
                                                                    1620
ttgcttctaa gttttggcaa ttatgaataa agctgctata accatcaagt gcaggttttt
                                                                     1680
gtgtggacct attatcaact aattcgggta aatctcaagg agtgcaattg ctggatcaca
                                                                     1740
                                                                     1800
cagtaagagt gtgtttagtt ttaagtggct gtgccatttt gcattcccac cagcaatgaa
tgagagtttc tgttgctcca cattccact accattcggt gttgtcagtg ttttgcattt
                                                                    1860
tggccattct agtaggtgtt tacatggtat ctagtcattt gaatgggcat atgatgtgga
                                                                     1920
```

```
acatcttttt ttttttaatt ttattattat tatactttaa gttttagggt acatgtgcac
                                                                     1980
                                                                    2040
aacqtgcagg tttgttacat atgtatacat gtgccatgtt ggtgtgctgc acccattaac
tagtcattta gcattaggta tatctcctaa tgctattgga acatcttttc atgtgtttat
                                                                     2100
ttgccatctg tatatcttcc ctgatgagtt ggggatgcat tctttccatc tcagagtccc
                                                                     2160
                                                                     2220
cagaaactaa catagcagtt ggtacagagt tggtgctcaa caaacatcag cttaggaact
                                                                    2280
atgtcctatg ttttttttttttttttttttttttaaaaagg aatgtgagct gttcccaaaa
cgtatgtcct tcccccatgc ctctaccctg cccttccaca aactttctga tcttcagcac
                                                                     2340
acactaccca accatcaagg ctgagacttc ccgtggccag cagtgtctca tgctggcttc
                                                                     2400
aagccccaca gcactgcttt tttcaacttc tcttgtggtt tagactgtctttagcccagc
                                                                    2460
                                                                     2497
aagagaattc gatatcaagc ttatcgatac cgtcgac
<210> 200
<211> 1217
<212> DNA
<213> Homo sapiens
<400> 200
tctggaacct ctctcttaat tcatatttcc cgtaagtctg tccatctgtt gtgtggaatc
                                                                       60
tcagtttgtg atattggata gatgcaaata agcaaagctg ttacttttca tagtttcaaa
                                                                      120
tgaaaaactc aacatcacta ctgtataaat tattttctag tctatctgtg tttattttta
                                                                      180
                                                                      240
aattcctttt actattctat acattgcaca ttgctctggg ggtaaaaatc cartataaac
cattagetea ttttattgae cattettgta tteageaagt ateceaagtaeagtggteea
                                                                     300
                                                                      360
taccttgaat ttttttcac tttttaagtg agatataatt tacataccat aacaacttag
tgggtttcag ttatttcaaa tacaaggttg twcatatatc atcactgtct aattccagaa
                                                                      420
                                                                      480
cattttattt ttatttttt tcagcagtgg ggtcctgcca tgttgcccag gctggtcttg
aactcctggg ctcaagtgat cctcctgcct cagtctccca aagtcctggg attacaggtg
                                                                      540
                                                                      600
tgcgccacca cacccaccct caaaacattt ttatttccta aaaaagaaac cccacatcca
taggcagttc cacattccgt tcttcctatg atccagctct tggcagctac tatagttkgt
                                                                      660
ttyctgtttc tgtggatttg tctattctgg acatagcatg taatggagt catacaatat
                                                                     720
                                                                      780
atggcttttt gtgcctggct tctttcactt agcataatgt ttttaagatt cattcatgtt
gtagcattat cagcactttg tttcttttat ggctaaataa cactgcattg tgtgsacata
                                                                      840
ccacattttg tttatccgtt aatcagttga tggatatttg ggttgtttcc acttcggggc
                                                                      900
tattatggat gatgcttctc tgaatatttg tgtacaagtt tttgtgtgga catttgtttt
                                                                      960
tagttcactt gagtatgtac ctaggatgga attactgggt catgtggtaa ctgttttaat
                                                                     1020
ttcgtaggaa ctgccaaatt gtttcctaaa gtggctacgg tattttacat tcccatcagt
                                                                     1080
                                                                     1140
actgtatgac agttccgttt atccacatcc actccaacæ ttgttgttat ctgttttgat
                                                                     1200
tatataatag ctattttagt gggtatgaag tcgtatttca aaaaaaaaag gaattcgata
                                                                     1217
tcaagcttat cgatacc
<210> 201
<211> 1563
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
 <222> (14)..(14)
<223> n equals a,t,g, or c
<400> 201
                                                                        60
 aattcggcac gagncagaaa cctgcggaaa atggtagcga tggcggctgg gccgagtggg
                                                                       120
 tgtctggtgc cggcgtttgg gctacggttg ttgttggcga ctgtgcttca agcggtgtct
                                                                      180
 gcttttgggg cagagttttc atcggaggca tgcagaggt taggcttttc tagcaacttg
                                                                       240
 ctttgcagct cttgtgatct tctcggacag ttcaacctgc ttcagctgga tcctgattgc
 agaggatgct gtcaggagga agcacaattt gaaaccaaaa agctgtatgc aggagctatt
                                                                       300
 cttgaagttt gtggatgaaa attgggaagg ttccctcaag tccaagcttt tgttaggagt
                                                                       360
 gataaaccca aactgttcag aggactgcaa atcaagtatg tccgtggttc agaccctgta
                                                                       420
```

```
ttaaagcttt tggacgacaa tgggaacatt gctgaagaac tgagcattct caaatggaac
                                                                      480
                                                                      540
acagacagtg tagaagaatt cctgagtgaa aagttggaac gcatataaat cttgcttaaa
                                                                      600
ttttgtccta tccttttgtt accttatcaa ægaaatatt acagcaccta gaaaataatt
tagttttgct tgcttccatt gatcagtctt ttacttgagg cattaaatat ctaattaaat
                                                                      660
cgtgaaatgg cagtatagtc catgatatct aaggagttgg caagcttaac aaaacccatt
                                                                      720
                                                                     780
ttttataaat gtccatcctc ctgcatttgt tgataccact aacaaaatgc tttgtaacag
                                                                      840
acttgcqqtt aattatgcaa atgatagttt gtgataattg gtccagtttt acgaacaaca
gatttctaaa ttagagaggt taacaagaca gatgattact atgcctcatg tgctgtgtgc
                                                                      900
tctttgaaag gaatgacagc agactacaaa gcaaataaga tatactgagc ctcaacagat
                                                                      960
tgcctgctcc tcagagtctc tcctatttt gtattaccca gctttctttt taatacaaat
                                                                     1020
                                                                     1080
gttatttata gtttacaatg aatgcactgc ataaaaactt tgtagcttca ttattgtaaa
acatattcaa gatcctacag taagagtgaa acattcacaa agatttgcgt taatgaagac
                                                                     1140
tacacagaaa acctttctag ggatttgtgt ggatcagata catacttggc aaattttga
                                                                    1200
                                                                     1260
gttttacatt cttacagaaa agtccattta aaagtgatca tttgtaagac caaaatataa
                                                                     1320
ataaaaagtt tcaaaaatct atctgaattt ggaattcttc tggtttgttc tttcatgttt
                                                                     1380
aaaaatgatg tttttcaatg cattttttc atgtaagccc tttttttagc caaaatgtaa
aaatggctgt aatatttaaa acttataaca tcttattgtt ggtaatagtg ctttatattt
                                                                     1440
gtctgatttt atttttcaaa gttttttcat ttatgaacac attttcattg gtatattatt
                                                                     1500
taaggaatat ctcttgatat agaattttta tattaaaaat gatttttctt tgcttaaaaa
                                                                     1560
                                                                    1563
<210> 202
<211> 756
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (230)..(230)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (755)..(755)
<223> n equals a,t,g, or c
<400> 202
                                                                       60
gaattccaat gtccacaggt gatgggagag atgctgagaa agggtggcca gtgagtgagg
aggaaaacca gaggagtgtg tatcctgggt accctgaatg tgatgagcga caagctgtcc
                                                                      120
cccagcactg tgccattgct tctcccagtt ctcttcaaag tcaccatcct gcttcagcgt
                                                                      180
qtqtqcccaq aaqataqccc ttcctcttct qtqcttccaq aatcctaqn caqqqaataq
                                                                     240
gaatacatgg acaagtagca tgcagtgcag tgagaatgta taacaacaga tgactctggg
                                                                      300
                                                                      360
gaccaaaatc aaatggggcc agctacaaag agggcaggaa atccccacag gtgattttac
tgtgaggaat tttatgaggt tcagcatcat atattgttag gagaaaatgc tgttttgata
                                                                      420
                                                                      480
agcagagata tgagaaaagt aaacgggaac tatgatttag agatctcatc tgrttacttt
gtcctattcy cagtttwatt actaaagagc agtaaagcca aggagaaagt agtaaagatt
                                                                      540
                                                                      600
agatgaatgg ttagcatgtg aaacctgaaa ggaaccagag tgatttccct cgaggaacaa
atgcacttct cttacatatg aaagatgatg tgttctgtgttcccatagaa tctagggaaa
                                                                     660
gaaaaagtga gcagatactc tgatatgagc aatataactt aggtgtaaaa aaaaaaggaa
                                                                      720
                                                                      756
ttcgatatca agcttatcga taccgtcgac ctcgna
<210> 203
<211> 1402
<212> DNA
<213> Homo sapiens
<400> 203
```

```
ccagtgtcgg tctatccaaa aaatgtacta acagatatgt aaaccctgat gaatacagta
                                                                       60
                                                                      120
tgtgttatga gaagtggccc aacgaagcag ctcatccaag tgagattctg aagttgggct
                                                                      180
ggcgagtaca cgaatggctt tcttactaga gagaagtggg accctgctaa tctgtagcat
                                                                     240
gtggtggcat catggttact caaatatcac tggaacagaaggtgaaagaa gaaatctgaa
                                                                      300
gagaaataaa acaaattttc ggcggttcca agatggccga ataggaacag ctccagtcta
                                                                      360
cagctcccag tgtgagagat gcagaagatg ggtgatttct gcatttccaa ctgagcaaac
ggcacaccag aagattatat cccatgcctg gctgggaggg tcccatgccc acggagcctc
                                                                      420
gctcattgct agcacagcag tctgagatcc atctgcaagg tggcagtgag gctgggggag
                                                                      480
gggcacccac cattgctgag gcttgagtag gtaaacgaag cagccaggaa gctcgaactg
                                                                      540
                                                                      600
ggtggagccc accgcagctc aaggaggcct gcctacctct gtagactcca cctctcgggg
                                                                     660
cagggcatag ccaaacaaaa ggcagcagaa accttgcag acttaaatgt ccctgtctga
cagctttgaa gtgagtagtg gatctcccag cacggagttt gagatctgag aacggacaga
                                                                      720
ctgccccctc aagtgggtcc ctgacccctg agtagcctaa ctgggaggca ccctccagta
                                                                      780
ggggcagact gacacctcac acagctgggt acccctctga gatgaagctt ccagaggaac
                                                                      804
                                                                      900
aatcaggcag caacatttgc tgttcagcaa tatttgctgt tctgcagcct ctgctgctga
                                                                      960
tacccaggca aacagggtct gcagtggacc tccagcaaac tccaacagac tggcagctaa
gggtcctgac tgttagaaga aaactaacaa acagaaagga catccacacc aaaaccccat
                                                                     1020
ctgtaagtca ccatcatcaa agaccaaagg tagataaaac cacaaagatg gggaaaaaac
                                                                    1080
agagcagaaa agctgaaaac tctaaaaatc agagcacctc tccccctcca aaggaacaca
                                                                     1140
                                                                     1200
gctcctcgcc agcaacggaa caaagctgga tggagaatga ctttgacgag ttgagagaag
aaggetteag aagateaaac tteteeaage taaaggagga agttegaace categeaaag
                                                                   1260
aagctaaaaa ccctgaaaaa agattagacg aatggctaac tagaataacc aatatagaga
                                                                     1320
                                                                     1380
agteettaaa tgaeetgatg gagetgaaaa acatggegeg agaaetaeat gaeaaatgea
caagettate gatacegteg ac
                                                                     1402
<210> 204
<211> 1417
<212> DNA
<213> Homo sapiens
<400> 204
tttttttttg attaaaaaaa tttaaaaaaat tataaaatga tgtcctatat gagtttaata
                                                                       60
catgacgttg gaggagcata gagatagacc tagactaggc atgtgtatgt gtgtgtgc
                                                                      120
atgtgtgtat gcatgcatgc ttatgcatgt gtgtgtgcat gcatgcttgt gtgtgtgtg
                                                                     180
                                                                      240
gtgtgtgtgt gtagagcctt ggtcatcccg acagagcaaa gacacaggag ggtggcacat
ggaagaacaa gtgactccac cctcccttgc acagttaaaa tctggccaag tgagaggga
                                                                      300
gatgggagag gggagagggg agaaaggaga agaggcactg actggagggg ctgaagcttt
                                                                      360
gtccctcctg ggcaggcgtt ctcatccac acccctcttc ttggatagag aggataagca
                                                                      420
ggccaaagat gcacgaaacc tgagttccac tgtagctcca gacttctaga aaagtcaaca
                                                                      480
                                                                      540
gcccctgtat ctctagctga tcctctgttg ttcaatgtct gcattaccgc actgggagac
acttgacaga ttgggcctgc cgcaggccat agcagacatt gggcagccct agacgaagc
                                                                     600
tgactgtcct tggaatgtgc cacaggggtg tgacgccccg gccaactcca gtgctgccta
                                                                      660
aaatggcctc ttgcaacatt cccctctctt catcttaaat cagggacttg aagccacaaa
                                                                      720
atggcaaata cacagttctg gcagtcgttt tgagtattgg agaaatcgct ctggccatct
                                                                      780
gttttgtctc cagcatgttt ctcacggaat atccacggat atatccatgg atataacaga
                                                                      840
catcctgcca aggcagagct tggctcttga gaactcggca agctcagtgc ttgcctggat
                                                                      900
                                                                      960
tcctgcctca tgtcccatcc agtgtttgga gaaaagctct gagagaaaga tgaatgtctg
aggccacaca gcctagaagt agtcaagagc acaggctcta gaactagcc cacgtgggct
                                                                    1020
gaaatcccag caccagcgcc tgccggctgt gtgatgtagg agagcttctt accagctctg
                                                                     1080
tgcctcactt gtctcacttg taaaatgaga ataagaattg gccgggctcg gtggctcacg
                                                                     1140
cttgtaattc cagcacttcg ggaggctgag gtgggcggat cacttgaagt caggagttca
                                                                     1200
agaccagtct ggccaacgtg gtggaaaccc cgtctctgcc aaaaatacaa aaattagcca
                                                                     1260
                                                                     1320
ggcgtggtgg cgggcacctg cagtctcagc tactcaaaag gctgaagcag gagaatcgct
                                                                     1380
tgaacctggg aggtggaggc tgtcagtgag ccaagatcac accactgcac tgcagcctgg
gtgacagagc aagactctgt ctcaaaaaaa aaaaagg
                                                                    1417
```

```
<211> 1965
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (333)..(333)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1961)..(1961)
<223> n equals a,t,g, or c
<400> 205
                                                                    60
ggatcctcgc ggcggcggcg gtgcttacag cctgagaaga gcgtctcgcc cgggagcggc
ggcggccatc gagacccacc caaggcgcgt cccctcggc ctcccagcgc tcccaagccg
                                                                   120
cagcggccgc gccccttcag ctagctcgct cgctcgctct gcttccctgc tgccggctgc
                                                                   180
                                                                  240
gcatggcgtt ggcgttggcg gcgctggcgg cggtgagcc ggcctgcggc agccggtacc
                                                                   300
agcagttgca gaatgaagaa gagtctggag aacctgaaca ggctgcaggt gatgctcctc
caccttacag cagcatttct gcagagagcg cancatattt tgactacaag gatgagtctg
                                                                   360
                                                                   402
ggtttccaaa gcccccatct tacaatgtag ctacaacact gcccagttat gatgaagcgg
                                                                   480
agaggaccaa ggctgaagct actatccctt tggttcctgg gagagatgag gattttgtgg
gtcgggatga ttttgatgat gctgaccagc tgaggatagg aaatgatggg attttcatgt
                                                                   540
taactttttt catggcattc ctctttaact ggattgggtt tttcctgtct ttttgcctga
                                                                   600
ccacttcagc tgcaggaagg tatggggca tttcaggatt tggtctctct ctaattaaat
                                                                  660
                                                                   720
ggatcctgat tgtcaggttt tccacctatt tccctggata ttttgatggt cagtactggc
                                                                   780
tctggtgggt gttccttgtt ttaggctttc tcctgtttct cagaggattt atcaattatg
                                                                  840
caaaagttcg gaagatgcca gaaactttct caaatctccc caggaccaga gttctcttta
                                                                   900
tttattaaag atgttttctg gcaaaggcct tcctgcattt atgaattctc tctcaagaag
caagagaaca cctgcaggaa gtgaatcaag atgcagaaca cagaggaata atcacctgct
                                                                   960
ttaaaaaaat aaagtactgt tgaaaagatc atttctctct atttgttcct aggtgtaaaa
                                                                  1020
ttttaatagt taatgcagaa ttdgtaatc attgaatcat tagtggttaa tgtttgaaaa
                                                                  1080
agctcttgca atcaagtctg tgatgtatta ataatgcctt atatattgtt tgtagtcatt
                                                                  1140
ttaagtagca tgagccatgt ccctgtagtc ggtagggggc agtcttgctt tattcatcct
                                                                  1200
ccatctcaaa atgaacttgg aattaaatat tgtaagatat gtataatgct ggcætttta
                                                                 1260
aaggggtttt ctcaaaagtt aaacttttgt tatgactgtg tttttgcaca taatccatat
                                                                  1320
ttgctgttca agttaatcta gaaatttatt caattctgta tgaacacctg gaagcaaaat
                                                                  1380
catagtgcaa aaatacattt aaggtgtggt caaaaataag tctttaattg gtaaataata
                                                                  1440
agcattaatt ttttatagcc tgtattcaca attctgcggt accttattgt acctaaggga
                                                                  1500
ttctaaaggt gttgtcactg tataaaacag aaagcactag gatacaaatg aagcttaatt
                                                                  1560
actaaaatgt aattottgac actotttota taattagogt tottcacccc caccccacc
                                                                  1620
cccaccccc ttattttcct tttgtctcct ggtgattagg ccaaagtct ggagtaagga
                                                                 1680
gaggattagg tacttaggag caaagaaaga agtagcttgg aacttttgag atgatcccta
                                                                  1740
acatactgta ctacttgctt ttacaatgtg ttagcagaaa ccagtgggtt ataatgtaga
                                                                  1800
atgatgtgct ttctgcccaa gtggtaattc atcttggttt gctatgttaa aactgtaaat
                                                                  1860
1920
1965
<210> 206
<211> 529
<212> DNA
<213> Homo sapiens
<400> 206
acgcgtccga ttacttacgt gctcctggct gggatggcac tgggcattæ gaaaaggttc
                                                                   60
tccccggagg tgctgggcct gtgtgcaagc acagcgctgg tgtgggtggt gatggaggtg
                                                                   120
```

```
ctggccctgc tcctgggcct ctacctggcc accgtgcgca gtgacctgag cacctttcac
                                                                    180
ctgctggcct acagtggcta caaatacgtg ggaatgatcc tcagtgtgct cacggggctg
                                                                    240
                                                                    300
ctgttcggca gogatggcta ctacgtggcg ctggcctgga cctcatcggc gctcatgtac
                                                                    360
ttcattgtgc gctctttgcg gacagcagcc ctgggccccg acagcatggg gggccccgtc
ccccggcagc gtctccagct ctacctgact ctgggagctg cagccttcca gccctcatc
                                                                    420
                                                                   480
atatactggc tgactttcca cctggtccgg tgaccccctg gcccagatg gcactgagtt
                                                                    529
<210> 207
<211> 1146
<212> DNA
<213> Homo sapiens
<400> 207
cccgtccaca atgcagcaga ctcttcccaa ggccacctag caagcaaggt tgatcggatc
                                                                     60
atctaaactg gccgcctcct gaatatttca ctgaatcctg gcgttcatgt tgaagcagac
                                                                    120
aaaatgagaa aggaggaggg cattgctcac ctctcaatag cttttttcgt tcaagttcta
                                                                    180
tgtctttatc agctcttgcc tgtgatttta ccccaattca accttgggag tgggaagaat
                                                                    240
atgaacagat aaccettgge ctaacagete catcaaacet cetgagage aactacetag
                                                                   300
gccaggctag tgagtgcttt gtgaggaagc tggtcagaag gttccctcaa ctccttcctg
                                                                    360
                                                                    420
gtcctcctgg acactgcaga aaagacttag gggatcccca gcagaggcca attgctctcc
ttccttccct gccccaccag gaaaggaata acgtccacag acttgaagca gatagtgaag
                                                                    480
tagatctgtg agaggttcta ggtacttagt gtgtagactt tgacgaatat ttctcaagtt
                                                                    540
gggagccctt gttaaaaatg atgtttaagg gagtggttgg ggggaagatg aaggcatgga
                                                                    600
qqaqqaaqaa qaqaaqqaaq cccttqccat ataaaattca tqcaqactaa acaqtttccc
                                                                    660
tgacagaata aataaagtgg atgctacccc actccaqat caaaagcaat ttaattaaag
                                                                   720
tctcttaagt tgtaaagagt tttaaatgat ccgtgttgaa ggcgaatsct gcyaaatgca
                                                                    780
gtgggtctga cgtcagctgc cgggcctggg ctgggaggcc atttgctatt ctgtttaagg
                                                                    840
                                                                    900
caggctggat tgtcttattt tggaaccagc ttggtggggg gtttgctttg ctactgcttc
                                                                    960
tgagccctga gcttcaaagg ctgaaattaa tggtgaacaa aattgtgcgg ctctggccat
cccatgcggg caagcccatt gagggttatc attaagtaaa gaaataaaga gggggaaaaa
                                                                   1020
                                                                   1080
agcctgcctg ttccaaaaac ctcatcagat aatgacctca gtgattgggt tttcattacc
                                                                  1140
aaacagcatc cagagattat caacccatag ægaagggag gggaaaaaaa aaaaaaaaa
aaattc
                                                                   1146
<210> 208
<211> 1346
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (537)..(537)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (880)..(880)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1115)..(1115)
<223> n equals a,t,g, or c
<400> 208
ggcagaggct tgtgaagggt aaagtttaaa cccctctgct tagcccctgc ctccagcctc
                                                                     60
```

```
tgccaggagt aatgtgctcc catagtactc tgatccactt gtatttggtg cttccttttt
                                                                      120
tittetttt cetteette teetteett teetteety teetstee teeattette
                                                                      180
cctccctccg tcttcctcca ttcttccctc cctccctatt cctccattct tccctcctc
                                                                      240
cctccctctc acatccttta ggactcagca tcacctcctc taggcagtct tcctggayt
                                                                     300
accaccaytt atgcacaaaa cacctaagca ytaccttatg tggcctcatt tatcactgct
                                                                      360
taaatatttt ttawacacgt gctgtgatgt ggcacatgca ggtgtcattc ttgakgatcc
                                                                      420
actggttatt gccttgaggg gatgacaact gcccggtagg gtwacctggt gtgactgcac
                                                                      480
ctaaaacagc aata\inftyaaag ggcccattgc cagttctgtc actgaccagc tggggcntct
                                                                      540
gagtatatcc cttaaccact ttggacctta atttggcatc tgtcaaatga gatggtggaa
                                                                      600
cttgaggaac tctaaggccc ctactgtgca ggtcttatta atgattacaa cagcagcagc
                                                                      660
agccagtgtt tactgaggac ttacaaagca ccaagcactt tgcctacct aatccttaca
                                                                     720
tcaactctac gaagttagta tggttactat ccctatttta cagatgagga gactaaggct
                                                                      780
aagagaggtt atatgacttg accacaaggt cataataaag aaacagattt gaatccaggc
                                                                      840
attctgactt tactgttctt agccacataa tgggcacasn ttygacacac rgttttgtgt
                                                                      900
actgtttggt ggtcactcac agactccatc ccagactctg catgaaccat ccctgttcta
                                                                      960
catttttaag gctcaaactg gagtctgggt gaaacctggg gacagaagac tgctatagtc
                                                                     1020
acaattatta gagggaaatg ggtgaggacc agtggccagc tctgttcatg aacctttgac
                                                                     1080
aattctcaca gagagtcttg ctttggacag agacnacttacgttgctgtt ttcagttacc
                                                                    1140
ctctttagga ggggagagta ggcctgagtc atgcttcaga cacagattaa aatcagattt
                                                                     1200
ggtaccaggt gcagtggttc acgcctgtaa tcccagcact ttgggaggct gagttaggag
                                                                     1260
tatcacttga ggccagaagt ttgagagcag cctgggcgac atagtgagac atcctctct
                                                                     1320
tttaaaaaaa aaaaaaaaa actcga
                                                                     1346
<210> 209
<211> 1974
<212> DNA
<213> Homo sapiens
<400> 209
ggcacgagtt gggagcagct ctgcgtgcgg ggcctcagag aatgaggccg gcgttcgccc
                                                                       60
tgtgcctcct ctggcaggcg ctctggcccg ggccgggcggcggaacac cccactgccg
                                                                     120
accgtgctgg ctgctcggcc tcgggggcct gctacagcct gcaccacgct accatgaagc
                                                                      180
ggcaggcggc cgaggaggcc tgcatcctgc gaggtggggc gctcagcacc gtgcgtgcgg
                                                                      240
gcgccgagct gcgcgctgtg ctcgcgctcc tgcgggcagg cccagggccc ggaggggct
                                                                      300
ccaaagacct gctgttctgg gtcgcactgg agcgcaggcg ttcccactgc accctggaga
                                                                      360
acgagecttt geggggttte teetggetgt eeteegaeee eggeggtete gaaagegaea
                                                                      420
egetgeagtg ggtggaggag ceceaaeget eetgeaeege geggagatge geggtaetee
                                                                      480
aggccaccgg tggggtcgag cccgcaggct ggamggagat gcgatgccac ctgcgcgcca
                                                                     540
acggctacct gtgcaagtac cagtttgagg tcttgtgtcc tgcgccgcgc cccggggccg
                                                                      600
cctctaactt gagctatcgc gcgcccttcc agctgcacag cgccgctctg gacttcagtc
                                                                      660
cacctgggac cgaggtgagt gcgctctgcc ggggacagct cccgatctca gttacttgca
                                                                      702
tegeggaega aateggeget egetgggaea aacteteggg egatgtgttg tgteeetgee
                                                                      780
ccgggaggta cctccgtgct ggcaaatgcg cagagctccc taactgccta gacgacttgg
                                                                      840
gaggctttgc ctgcgaatgt gctacgggct tcgagctggg gaaggacggc cgctcttgtg
                                                                      900
tgaccagtgg ggaaggacag ccgacccttg gggggaccgg ggtgcccacc aggcgcccgc
                                                                     960
cggccactgc aaccagcccc gtgccgcaga gaacatggcc aatcagggtc gacgagaagc
                                                                     1020
tgggagagac accacttgtc cctgaacaag acaattcagt aacatctatt cctgagattc
                                                                     1080
ctcgatgggg atcacagagc acgatgtcta cccttcaaat gtcccttcaa gccgagtcaa
                                                                   1140
aggccactat caccccatca gggagcgtga tttccaagtt taattctacg acttcctctg
                                                                     1200
ccactcctca ggctttcgac tcctcctctg ccgtggtctt catatttgtg agcacagcag
                                                                     1260
tagtagtgtt ggtgatcttg accatgacag tactggggct tgtcaagctc tgctttcacg
                                                                     1320
aaagcccctc ttcccagcca aggaaggagt ctatgggccc gccgggcctg gagagtgatc
                                                                    1380
etgageeege tgetttggge teeagttetg cacattgeae aaacaatggg gtgaaagteg
                                                                     1440
gggactgtga tetgegggae agageagagg gtgeettget ggeggagtee eetettgget
                                                                     1500
ctagtgatgc atagggaaac aggggacatg ggcactcctg tgaacagttt ttcattttg
                                                                    1560
atgaaacggg gaaccaagag gaacttactt gtgtaactga caatttctgc agaaatcccc
                                                                     1620
cttcctctaa attcccttta ctccactgag gagctaaatc agaactgcac actccttccc
                                                                     1680
```

```
tgatgataga ggaagtggaa gtgcctttag gatggtgata ctgggggacc gggtagtgct
                                                                    1740
ggggagagat attttcttat gtttattcgg agaatttgga gaagtgattg aacttttcaa
                                                                   1800
                                                                    1860
gacattggaa acaaatagaa cacaatataa tttacattaa aaaataattt ctaccaaaat
                                                                    1920
ggaaaggaaa tgttctatgt tgttcaggct aggagtatat tggttcgaaa tcccagggaa
                                                                   1974
<210> 210
<211> 890
<212> DNA
<213> Homo sapiens
<400> 210
aattcggcac gagattcact aaacactgca atacaagctt ggcaacagaa caaatgccct
                                                                      60
gaggtagagg agttggtctt cagccatttt gtgatctgta atgacacaca ggagacactg
                                                                     120
cggtttggcc aggtggatac tgatgaaaat attctgctgg cgagtctcca cagtcaccag
                                                                    180
                                                                     240
tacagctggc gctctcacaa atccccacag ctgttacaca tctgtattga aggttggggc
aactggcgtt ggtcagagcc tttcagtgtg gaccatgccg ggacttttat tagaacaatt
                                                                     300
cagtacaggg gtcgaactgc ttctctcatc atcaaggttc agcaactca tggagtacaa
                                                                    360
aaacagatta tcatctgtgg aagacagatc atctgtagtt acttgtctca aagcatagaa
                                                                     420
ctaaaagtcg ttcagcatta cattggtcaa gatggacaag ctgtagttcg ggaacatttt
                                                                     480
gactgcctca cagccaaaca gaaattgcct tcgtacatac tagaaaacaa tgaactgacg
                                                                     540
gagctgtgtg tgaaggccaa aggagatgaa gactggtcaa gagatgtgtg cctggaatcc
                                                                     600
                                                                     660
aaagcccctg agtacagcat tgtcattcag gtgccatctt caaacagttc cattatttat
                                                                     720
gtctggtgca cagttttgac tttagaaccc aactctcaag tgcaacaacg aatgattgtg
ttcagccctc tttttatcat gaggagtcat cttccagacc ccatatcat acatttggag
                                                                    780
aaaaggagtc tgggattgag tgaaacacaa attattccag gaaaaagggca ggaaaaacca
                                                                     840
ctgcaaaaca tagaacctga ccttgtacat cacctgacat tccaagcaag
                                                                     890
<210> 211
<211> 1043
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (987)..(987)
<223> n equals a,t,g, or c
<400> 211
gaagetggag etecacegeg gtggeggeeg etetagaact agtggateee eegggetgag
                                                                      60
gaattcggca cgagctttcc cctaagtttt cttatcttca ggctacagaa ttattgagat
                                                                     120
tactctcaac cattcctcat gttagaaact ctttctcaatttatttccat cctctttgtc
                                                                    180
cttctctgga taatctcaga tttgatactg tgttttctta aatgtggtaa tcccggaact
                                                                     240
ctagatatgg ttcttcctat ttggactaat cagtatacac attccagtag atccattttg
                                                                     300
tectttatet agatacagta tttetagtag ettgaaaete atttgeettt taaaagttgt
                                                                     360
tttaggatta aaaatcacaa accaaatatc cactgtcctc aagagaatca cctaacaccc
                                                                     420
ataaggattc ttgtagactc atggtaaagg ggtagctatt gttttatatc agatagcagg
                                                                     480
agtagctatt cttttatatc agataaaaca cattaaagca acatgaatag gcatttgtta
                                                                     540
aaagaagata tacaaatagt caacacatat aaagaaattc tcaacatcac taatgatcag
                                                                    600
ggaaatacaa attaaaacca cgatgacata caccttatcc cagccagaat ggccattatg
                                                                     660
aaaaagtaaa aacaaaacaa aaaaaacaga tgttggcgtg gatatggtaa aaagggaatt
                                                                     720
gcttatacac tgctggtgag aatgtaaatt agtacaagct gtgtggaaaa cagtatggag
                                                                     708
                                                                     840
agttcaagta gatctaccac tttatctggc gttctcacta ctggctatct attaaaagga
aaataagtcc ctatgtcaaa aaagacacct acatgtctat gtttattgca gcacaattca
                                                                     900
                                                                     960
caattgcaaa gatatggaac cagcctaagt ccacatttaa ctgatgagtg gataaaggaa
atgtgtgtgt atsmtcacca tggttgncæ aaagagaccc gttgcctcct gtaaccagac
                                                                   1020
actcaggctt tccaggagcc cag
                                                                    1043
```

```
<210> 212
<211> 1079
<212> DNA
<213> Homo sapiens
<400> 212
ggcacgaggt gttagaaagt tttcgaagca gtgtgagtct tgtacctttg tggtcctgtc
                                                                    60
tcacagacac ctgtctattc cctgaccctt ttaaatgcta actttctgcc tgtaggaaat
                                                                    120
                                                                     180
cttccctttg tgcttaggtc tttttcttct gtgagcttta gataaacaac ctagtgttta
                                                                    240
aactttttaa taagggattc attttttaat acatgagaat tcatttcaaa attttggttt
tagttattta ttttattcta cttggct&t tttcagacag atgttctctc ctggattgta
                                                                    300
aaagtcgaat tcaaaggatt tttatttgta atatacttaa cctttctctt gtaagttgcc
                                                                     360
                                                                     420
atctgtgtag atacagcttt gattgcctga caagaggaaa atgtttccca ttatcttttc
ctgcctgaac tatacggtca cttgtgttcc agcatagtgg ttcttaaccc tcatagtgg
                                                                   480
tcagaatcac tttgcagagc ttttaaaaac tctagatgcc tggggaccac cccaaagact
                                                                    540
ccattttgtt gtcatgggtc aaagcacagt cttctagttt gcagctagtg ttgagtacaa
                                                                     600
                                                                     660
ctagagttta acccagttga attttagttt aatcttggct ggtcttgaag atgttagtaa
                                                                    720
tctctattca tttttttkga aægtaccaa tgaratcaga aagttaatta gaaaacatct
agttgaatcc cctgttttta atagatgggg aaaccaagac ccagagaata taatccaaag
                                                                    780
ctacctgtca cataggccac aatttctttt ccaatattct gttcttcgct gttcttctaa
                                                                     840
tttgcagaac tcctctttaa aaaacctttg gagaatgtat tggcctcata ccccttcct
                                                                   900
                                                                     960
tcagcctgaa agacatgcac ctgtcactta tttatgatat ttaaatgcaa cctctagaac
                                                                    1020
aggggtgtcc aatcttctgg cttccctggg ccacattgga agaagaaatg tcctgggcca
1079
<210> 213
<211> 2103
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2101)..(2102)
<223> n equals a,t,g, or c
<400> 213
ttcctcgtag cgagcctagt ggcgggtgtt tgcattgaaa cgtgagcgcg acccgacctt
                                                                      60
                                                                   120
aaagagtggg gagcaaaggg aggacagagc cetttaaaac gaggcggtg gtgeetgeee
                                                                    180
ctttaagggc ggggcgtccg gacgactgta tctgagcccc agactgcccc gagtttctgt
                                                                    240
cgcaggctgc gaggaaaggc ccctaggctg ggtctgggtg cttggcggcg gcggcttcct
ccccgctcgt cctccccggg cccagaggca cctcggcttc agtcatgctg agcagagtat
                                                                     300
                                                                    360
ggaagcacct gactacgaat gctatccgtg cgagaacagc tattccacga gaggatccgc
gagtgtatta tatcaacact tctgtttgca acactgtaca tcctctgcca catcttcctg
                                                                     420
accogcttca agaagcctgc tgagttcacc acagggtgtc ctgggccggg tctmtgagac
                                                                     480
agtggtgatg ttgatgctcc tcactctgct ggtgctaggt aggtgtggg tggcatcagc
                                                                    540
                                                                     600
cattgtggac aagaacaagg ccaacagaga gtcactctat gacttttggg agtactatct
cccctacctc tactcatgca tctccttcct tggggttctg ctgctcctgg ctgctggaag
                                                                     660
acctggagga gcagctgtac tgctcagcct ttgaggaggc agccctgacc cgcaggatct
                                                                    720
gtaatcctac ttcctgctgg ctgcctttag acatggagct gctacacaga caggtcctgg
                                                                    780
ctctgcagac acagagggtc ctgctgggta tgtggcttcg tagggcttgg gatacctggg
                                                                    840
                                                                     900
tttccccaag gagagtagcc cctggttcca ggtgcttgct gacagcctcc catccctgca
                                                                    960
cagagaagag gcggaaggct tcagcctgkc aacggaæct gggctacccc ctggctatgc
                                                                   1020
tgtgcttgct ggtgctgacg ggcctgtctg tgctcattgt ggccatccac atcctggagc
                                                                   1080
tgctcatcga tgaggctgcc atgccccgag gcatgcaggg tacctcctta ggccaggtct
                                                                   1140
cettetecaa getgggetee tttggtgeeg teatteaggt tgtacteate ttttacetaa
tggtgtcctc agttgtgggc ttctatagct ctccactctt ccggagcctg cggcccagat
                                                                   1200
```

```
1260
qqcacqacac tqccatqacg cagataattg ggaactgtgt ctgtctcctg gtcctaagct
                                                                 1320
cagcacttcc tgtcttctct cgaaccctgg ggctcactcg ctttgacctg ctgggtgact
                                                                 1380
ttggacgctt caactggctg ggcaatttct æattgtgtt cctctacaac gcagcctttg
caggcctcac cacactctgt ctggtgaaga ccttcactgc agctgtgcgg gcagagctga
                                                                 1440
                                                                 1500
tccgggcctt tgggctggac agactgccgc tgcccgtctc cggtttcccc caggcatcta
ggaagaccca gcaccagtga cctccagctg ggggtgggaa ggaaaaaact ggacactgcc
                                                                1560
atctgctgcc taggcctgga gggaagccca aggctacttg gacctcagga cctggaatct
                                                                 1620
gagagggtgg gtggcagagg ggagcagagc catctgcact attgcataat ctgagccaga
                                                                 1680
gtttgggacc aggacctcct gcttttccat acttaactgt ggcctcagca tggggtaggg
                                                                 1740
ctgggtgact gggtctagcc cctgatccca aatctgttta cacatcaatc tgcctcactg
                                                                 1800
ctgttctggg ccatccccat agccatgttt acatgatttg atgtgcaata gggtggggta
                                                                 1860
                                                                 1920
ggggcaggga aaggactggg ccagggcagg ctcgggagat agattgtctc ccttgcctct
ggcccagcag agcctaagca ctgtgctatc ctggaggggc tttggaccac ctgaaaagcc
                                                                 1980
                                                                  2040
aaggggatag ggaggaggag gcttcagcca tcagcaataa agttgatccc agggtttgct
                                                                  2100
2103
<210> 214
<211> 1212
<212> DNA
<213> Homo sapiens
<400> 214
                                                                    60
qccaagcttg gcacgargtt ggtggcggcg tccggaggtg ctggtttgtt ctcggtgaac
ggcgcgcggg gtctctcctg agtgcgagct acgggacctt cgccatgccg gggatggtac
                                                                   120
                                                                 180
tcttcqqccq qcqctqqqcc atcqccagcq acgacttqgt cttcccaggg ttcttqagc
                                                                   240
tggtcgtgcg agtgctgtgg tggattggca ttctgacgtt gtatctcatg cacagaggaa
                                                                   300
agctggactg tgctggtgga gccttgctca gcagttactt gatcgtcctc atgattctcc
                                                                   360
tqqcaqttqt catatqtact qtqtcagcca tcatqtqtqt cagcatqaga ggaacgattt
                                                                  420
gtaaccctgg accgcggaag tctatgtcta agctgcttta catccgcctg gcgctgtttt
                                                                   480
ttccagagat ggtctgggcc tctctggggg ctgcctgggt ggcagatggt gttcagtgcg
acaggacagt tgtaaacggc atcatcgcaa ccgtcgtggt cagttggatc atcatcgctg
                                                                   540
ccacagtggt ttccattatc attgtctttg accctcttgg ggggaaaatggctccatatt
                                                                  600
cctctgccgg ccccagccac ctggatagtc atgattcaag ccagttactt aatggcctca
                                                                   660
agacagcagc tacaagcgtg tgggaaacca gaatcaagct cttgtgctgt tgcattggga
                                                                   720
                                                                   780
aagacgacca tactcgggtt gcttyttcga gtacggcaga gcttttctca acctactttt
                                                                   840
caqacacaga tctqqtqccc agcgacattg cggcgggcct cgccctgctt catcagcaac
                                                                   900
aggacaatat caggaacaac caagacctgc ccaggtggtc tgccatgccc cagggagctc
ccaggaagct gatctggatg cagaattaga aaactgccat cattacatgc agtttgcagc
                                                                   960
                                                                 1020
ageggeetat gggtggseee tetacateta cagaaaceee etcagggge tgtgcaggay
tggtggtgac tgaaattagc tggacatggt tgcacacacc tgtaatcaca gctactcggg
                                                                  1080
aggttgaggc gggagaatcg cttgaaccag ggagttggag gttgcagtga gtggagatca
                                                                  1140
                                                                  1200
1212
aaaaaactcq aq
<210> 215
<211> 616
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (17)..(17)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
```

```
<222> (580)..(580)
<223> n equals a,t,g, or c
<400> 215
cmgctrctra gcaactnagt gggatscccc gggctgcagg aattcggcac gaggagaacg
                                                                       60
gctgcacgtg ggagatgctc cgtggatgtt tgtagaacgc tggcttccgt gtttcctcgt
                                                                      120
tgtggctgtg gtggtgtggg tctttgcctg tggacccgtg gaagacaaag aagacagttt
                                                                      180
tggatggtca agctattttc ttgcttcagg gctccctccc ctgctttttg aagcctcaca
                                                                      240
aaccaggact gtgagggcag gaaggcttgg ggtctttgtg tgctgagcct cattagggtt
                                                                      300
ttaagaacct ccctcctttc atctctagct tacgagaggg atgattcatt atcttccctc
                                                                      360
ctcaggctgc agtagaagca gacagtctct gcctcctgc ttgcctttcc tccctcccat
                                                                     420
tcactgttga ttattgccct caagaataac aggttgccca gctactcgag argcttaagt
                                                                      480
gggaggattg cttgacccca ggagttcgag gctgcagtga gctatgatcg cttcactgcg
                                                                      540
                                                                      600
ctatagcctg gcagacacag agagacccta tctcaagcan acagacaaac aaaaaaaaa
aaaaaaaaa ctcgag
                                                                      616
<210> 216
<211> 1144
<212> DNA
<213> Homo sapiens
<400> 216
gcacacatac gtatgcatat aaggattatc atatataaat ttatataaca atttttatgc
                                                                       60
atgagtgtga ataaatatat gcatatatat gtct&atat gtaaacataa tgcatatagt
                                                                     120
aatttacata tatctgtgtg tatatatgtg tgtggcacag tcacacacac acacacaaat
                                                                      180
atgtatacag atgcttcctg gcttacaata ggatttcatc ctgataaatt catcgtaaat
                                                                      240
                                                                      300
caaaagtatt gcaagttgaa aatgcatttc ataccccagt aagttcatca tttgktcaaa
agtattgtaa gtcagaatac atttgacatc tggataagtc cattataaag tcaaaacatt
                                                                      360
ttaagtctaa tcattgtaat ttgggtaccg tctatgtaga tacgtaaatc atacattaag
                                                                      420
ggtgactagg tgccaggttg aatgttatga aaatgaattt caagtctcac aggcacattc
                                                                      480
                                                                     540
acccattaca aatatgtacc acattcacctattacaaata tgtacacatg tatgtgttca
tgttcatact acaatggcag agttgcataa ttgtgacaga aatcaaatgg cttacaataa
                                                                      600
ctaaggcatt tctacatagc cttttaaagt aaaaagttta ttcattgttg gtctacataa
                                                                      660
cgtggaggaa tttgtagcgg acaggctatt acagtcagtg aattgaaagg aagggagaag
                                                                     720
ttgggggaga ctagtagctt tttgaaggta ttattttaga gatttatgaa kttttggaga
                                                                      780
acaagggatg aggaaaaagt attgaagaat ttgggagagc aggatatcaa ttagtttctg
                                                                      840
actttattgg gaatgcagat cagagaaagg ctgggataga aaactgaaat aataattata
                                                                      900
gccttcggtg aatatcagca ggactgatgg gactataggg agggtagact aggtgataga
                                                                     960
gcccattgtg gcagtttcgg taggacatca ttggtgtata cgtatatgtt atttgtgatt
                                                                     1020
ttgtttatct ttttttaata agcaaaagga aaagtgtcct gatatgtttt ggctttgtga
                                                                     1080
ccccatccga atctcacctt gaattgtaac aaagttttac catgttaaac aggc#gtct
                                                                    1140
cgta
                                                                     1144
<210> 217
<211> 1649
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1249)..(1249)
<223> n equals a,t,g, or c
<400> 217
agctccaccg cggtggcgc cgctctagaa ctagtggatc ccccgggctg caggaattcg
                                                                      60
gcacgaggga tctgtgtggc atggtatgtg tgtttatgtg tattgtgggt gtctgtgtg
                                                                      120
catgctgtgc gtgtgtgtat tgtggatgtt tactgtcccg ggcagtagaa aggacgtcgg
                                                                      180
```

```
240
ggaagcagcc ccagcatcag ggacaggcca ggagtgcaga atgcatggaagctggtcagg
                                                                      300
tcggagcctg ggatgaagga agcacagaga tgcaagggtg ccagggccca tggaaccaag
agccgatgat caaggccaca gtgcacacag ccctggaggc aaaggacata ttcatttcac
                                                                      360
aaggattaaa aagcatgggc caaggctggg ccccaggcca ggactgggga tacagagtgg
                                                                      420
atcagtcccc at\inftyctgccc ccaggtgctt acccacaccc attcacctca caggtttccc
                                                                      480
caccccagcc ccttggcgag ctcctcctca ttcctcaaar cgtcgctkag gtcacgctcc
                                                                      540
ttcccgaggc ctctccccat cctctaaaac accctctccc tgctgcccac ttgcagcaca
                                                                      600
gtcagagagc tccgtggcct gtttccactg gactgagtct tctgggggt gctggtgcag
                                                                     660
agcagarccc tgggctggga gtcccggcac ctcgttccac tccctcaccc acagcctcgc
                                                                      720
tgtttaacct caggcaggcc gtgtmcctcc tcagcctcac tttccccttg tgtaaaatga
                                                                      780
gggaagggac tgcgccttct aagccatctt tcagcttaaa acctctttga ccttctatct
                                                                      840
ggctaatgga ggtgctgacc aggggcaaga agggatttga aaaacgcttt gaaaaattca
                                                                      900
tagcaggagg caaaggagaa agagtcttta ttttcgtaga gcgggaggca ggaggagtta
                                                                      960
                                                                     1020
tggacagagg ctgtcgatga aaaggacagc atctcagagc actttgtggc atttaatgtc
taatgcctcc tcccattaaa gcagtggcat caaatatta ccaaagcagc attaaaaaatt
                                                                    1080
aacctttacc atggggatgt ataaaggccc taagttccct gagaagtgac cgaacatcag
                                                                     1140
gagggtaaag tgacaggaag gaaggctaca agcgggttgt gaataatgga agcccccaaa
                                                                     1200
ggtcccccaa cacagctccc tgttgacccc actcccaaag ccagggcanc ctccggccgt
                                                                     1260
gtctctgcag aggctcccag cccttcggag actcccagag ggcctgcagg ataaggacag
                                                                     1320
gccctcagct gggcatccac agccttccat ggcctggccc tgcctctctg ggcagctggg
                                                                     1380
atctgtagga tggaaaggaa tgagtctgtc ggagttggaa gagaccaggg gaggaagtgg
                                                                     1440
                                                                    1500
ggagtggtcc gggcactgga aatagcacgt gcmaggcac tgaggcagag acagctgcac
atcaatccat cagaagagca gccaggtggc atgagtgtgg gggaggaagg aagcgcagga
                                                                     1560
ggggacaggt gggagatgca ggtaggtctg actgtgcagg gccatggtaa gatgtgggct
                                                                     1620
tctcggtcca gggacagggg tgccctcga
                                                                     1469
<210> 218
<211> 520
<212> DNA
<213> Homo sapiens
<400> 218
gagaaggact ttatgcaggg aagtgacgca ggacacggag ggactcatat ttaccgagct
                                                                       60
ttggtgcagt ggcccctggc ctgggtattc tatttaagcc atgcaaaaac ccattgggga
                                                                      120
gaagagttaa ggttttcctt ccgcaggaaa aactgaggc tcagagaggc tatgagacat
                                                                     180
gagacatgcc aggtcacaca gctggtagct ggcaaagctg actccaacct gtgtctgagg
                                                                      240
gactetgaaa cetggttetg geececacte tgggeageet geteetetet acaageeact
                                                                      300
gcctgcagat taagcagtcc tagcaaaggc ctgggagcat ccagagagtg cccctggctg
                                                                      ക
gcgagtggta gagcagcctt ggtttccttc ctttgaccct caaggatcac aggagtgtca
                                                                      420
cccagaagta acttaactta tgagtgtttt atgaacagga aaagcaggaa aaggggtaaa
                                                                      480
gtcacatgat ttcacaacca aacagcctgt aaactcgtgc
                                                                      520
<210> 219
<211> 1042
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (222)..(222)
<223> n equals a,t,g, or c
<400> 219
gaatcggcac gaggaaatat tactgaattt tcttttatta tcaaatacaa atttagcata
                                                                       60
tcctatgtaa aatgctgatt gcccttttct gcatattatt tcagatcttg ttttctatac
                                                                     120
                                                                      180
ccacaaggat tttctatata tttctcataa acaagagagt ccacatattt actacttacc
ttatgagtga acaaaaaaat cacgattggg ttcgcagaac tncaaagttg caccgtgtgt
                                                                      240
```

```
ggctcattag tggaaaaatg ctgctggttg cagatataaa ggctctgatc aggtggctgt
                                                                      300
                                                                     360
ggggccctaa tccagaatga gca@gttat tttgatcaat ggagtctaac ctagtcctcc
                                                                      420
cccaaggttc aaaatgtcct ctggtgcttg caattttctt acagtatttt tttctaattg
                                                                      480
ataccaaget gggactetee tggtatatea tatttggaaa tgaaaagtga aacaaatgag
                                                                     540
aattttcctt ttgcgttggt gaatgcatac agtgatttaa gtttgggtgc atttttca
                                                                      600
gtctgttgat tgttctagga atcgatgctc acagatcaat gagtcatgtc caatttcata
aacaactgcc tggggtgagt gtggcctcat aaatgtgaac aaatagtaat ggagtggcaa
                                                                      660
tcaaacctaa agtgttactg caaatcatgc catgctgaaa gaagaaacat ctcaaaaaga
                                                                      720
gaataaacat ttttagggtc gggtgtggtg gttcatgcct ataatatcag cactttggga
                                                                      780
ggccaaggca gaaggattgc ttgaggctag gagttggaga ccagcctgag taacatagtg
                                                                      840
agaccccagt ccttacaaaa aaaaaaaaaa attaacaaag gattgtggtg catgcctgta
                                                                      900
gtcttagcta ctcgggaggc tgaggaggga agacaacttt aacccgggagttcaaggttr
                                                                     960
cagtgctatg attgcaccat cgcgttccag ccttggtgac agagcaagac tctgtctcaa
                                                                     1020
                                                                     1042
aaaaaaaaa aaaaaactcg aa
<210> 220
<211> 536
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (536)..(536)
<223> n equals a,t,g, or c
<400> 220
                                                                       60
ggacgagtgg ggagctggaa ggaggatgga gtgggaagat aatcttccct tggagttcag
ctgtcccgtg accaaactcc tctctgtccc cagctggact cctctagatg ctcagatgct
                                                                      120
cettetette ttteettete tgteacacea ttettetgtt cettggtet tetgeteate
                                                                     180
                                                                      240
tccttgtgga gscawaggtt tggggtttat atgagtacag gataggtgac atggtggatc
                                                                      300
aaaaggcaac attttgtgtg caaaaacagg aatgcctgtt cccattaggg tcatgggttk
ccagggttga gggtggggcc tttgctaggg aaccaccctc ttctacccag tattttcctg
                                                                      360
                                                                      420
tctcctgtct gtatcaatag gtacacaata twtattaaat taatkaatga ctatacatta
                                                                      480
tgaaatggga aatgcaaggt ataaaggaga attgctgtcc ttgaaaagaa atttagtttg
                                                                      536
tttttttgtt gagatggagt cttgctctaa gctagagtgc agaatgtaat caaggn
<210> 221
<211> 796
<212> DNA
<213> Homo sapiens
<400> 221
ggcacgaggt gacgtgtttc tgcatctgtt gccatgacaa gctccctgct tcacccattg
                                                                        60
                                                                       120
ctgtatcccc agcacctctc tcactgcctg gcaagggaaa gcactcagaa gacgctgaat
                                                                       180
gaccargtag agtgatgggt tgtacagcac tgttactcct tttccatctc tgtgtcccat
gtgaacctta tggcacccat gagaaggagc ttgtaccagg tttatacttt ctagtttaca
                                                                      240
gatgagaaaa caggatcaga gtggtacaga tattggtcta agtcacagag aaagtgaatt
                                                                       300
gtaaaagcag aaacagagca caggctgcct gacttctagt ccagtgcttt ttgctcaaat
                                                                       360
                                                                      420
tgcctcttat ttctcaggtt attcttgaaa tggcagatgg gattctgtt taatgaaaca
aaagtgacaa ttctttcttt cttggagaga aggtggagac agggtctcac tctatcacac
                                                                       480
                                                                       540
aggctggagt gcagtggctc aatcatggct cactgcagcc tcaatctcct gggctcaagt
                                                                       600
gattetteca cettageete ettgaeteae tgggaetaea ggtgeaeaee aceataeetg
                                                                       660
gctaattttt aaagtttttt gtagagacag ggtctcacta tattgtgcat tctggtcttg
                                                                       720
aactcctggt cccaagtgat cttcctgcct cggctttcca aagtgctgga attacaggca
tcacccccat gcctagcctg aaaattcttt ctatgtcctt aacatcttct ttcccagtat
                                                                       780
                                                                      796
ttctccatcc actcga
```

```
<210> 222
<211> 1037
<212> DNA
<213> Homo sapiens
<400> 222
                                                                       60
ggcacgagct cgtgccraat tcggcacgag ggtcatagtc cacagaggta aaagttaaca
                                                                      120
attctgatgc tcttgtatgt gcataccaga ggctctaggg aagaattccc tctttctttc
ttccaccttc ttgtggctgc tggcattctt tggcttgtgg tcacatcact cctatcttga
                                                                      180
aggecageat etteaaatet gtttettett cacatageet tetgtgtgtg cagtgeeete
                                                                      240
                                                                      300
tacctctctc ttataaagac atttgtgatt aaatggaggg tttaggataa tctcgtcaag
                                                                     360
atcettaact taateacaac tgeaaaaace tetteecaa ataaggtaac atteacaggt
                                                                      420
tccagggatt aggacctatt atctttggta agtattattc agcctaccac aatagctaaa
acaattctga aaaagaagaa taaagtgaga gaaatcagtt tatctgattt cgatacttat
                                                                      480
                                                                      540
tgtatagcta tggtaaataa ggctgcatgg tattaaagaa aggacatata tgaatgaaac
                                                                      600
agaatagagg acccagaaat agacccacac aaaggagccc aaattatttt taaccaaggt
                                                                      660
agaagacaat ttattggagg aaagacagcc ttttcaacaa atggtactat aacaattaga
tatccatagg caaaaaaaaa aaaaagaatc ttgatctaag gctcacacct tatataaaat
                                                                      720
                                                                     780
aatattaaac tcatggccag gcacagtgactcatgcctat aatcccaata cactgggagg
                                                                      840
ctgaggcaag agtatcactt gaggccaggg gttcaagact agcctgggca acacagtgaa
actctatctc tacaaaaaa ttataaacta gctgggcatg gtggcacatg cctgtagtca
                                                                      900
caactactca cgaggctgag aagatcactt aagctgagtt gttcaaggtt ctaatgagct
                                                                     960
                                                                     1020
acaatcgtgc cactgcactc cagcctaggt gacagacaaa gaccccatct caaaaaaaaa
                                                                     1037
aaaaaaaaa actcgta
<210> 223
<211> 1110
<212> DNA
<213> Homo sapiens
<400> 223
                                                                       60
gaatteggea egagettggt teggggggg geaaaateea gaatetgeta aacaccaatg
ctgtcactca gagtttgtgt atctgctgtc tgtggagctc tggaccaggc ttgagggacg
                                                                      120
cctggggttt ccacccacat ctggggcaaa ccagaccccc aagtcactga catgtcggtt
                                                                      180
                                                                     240
tttctactaa tcacgttggc tttggcaatt ctgtatataa taagaagtat tgtgttctca
                                                                      300
ettgcacttk ggcagaacgg ttcactccaa ggctgaatga ctgccacgga ccatcccca
gcaggggtcc tggggtttag tggtttgatt ctgagcacct ctamgcamag agccccttag
                                                                      360
tgggttccct aactggacgg ctaaccctgs tgtggaatct gactkkwtct ggaccgaaga
                                                                      420
ggacaggetg ctctggagaa atcttgggc cttgtgcctg atgctggctc gggccaccct
                                                                      480
                                                                      540
ggccaccete cetteatgee ceatgggace aggeageage atgggagggg geagetteea
gaacaccett etgetagggg etketggeet eeetgetgge aeggeeacat eeatggtetg
                                                                      600
agtgtgtggt tggaatgttt tatcaacacc agtcctcaca gcttccccag atggcgaag
                                                                     660
gggaagggga tggtgtgtgg ggggattgcc tcccttgagg ccccccagct cccaggatac
                                                                      720
ttgctggcgg agctctgcct gcggtggagg ccctatgact tgacctccat cttctccctg
                                                                      780
ggcccctcgc tggccctcac tggcaggggc tcctgcacgc ctgcaaggcc agagcctccc
                                                                      840
gccaggtgca ggagaagtaa atgcaggcca gagataaatc gtatttccct ctaactcgga
                                                                      900
tgtggagtga gaggaaggaa gcaggagtgg agctgagtgt tagtgagagg tggctgagaa
                                                                      960
ggcggggtcc cgcttcttgc ttccttgggc atttgctgta ggtgctgggt ttcagcctgg
                                                                     1020
aagggtgcag cctctgcact aagtctggtt tggtgaacgt tcatggccc caatataaac
                                                                    1080
agtgttctgg gcgttctttg tgactctcga
                                                                     1110
<210> 224
<211> 841
<212> DNA
<213> Homo sapiens
```

<400> 224

```
60
gggctgcagg aattcggcac gagctcgtgc cgactctcag agcagggaac agcgggggaa
                                                                      120
aatqtttaca ctccatgcac aatctgtgct tccagtccct caccctatgt ggcccaatag
                                                                      180
ctggctggat ttcacactta attggtattt ttttctgcct tcttcccctg ccccactga
ctcctctct ctccctttga ttgtactcaa ggttctgggg cctgggccct gggtgggtac
                                                                       240
                                                                     300
caacagctgc tcgctgttcc catgtcctct ctccagcttt gctgtgttc tctgctacct
                                                                      360
aatctcagtg actgtgaaag gacattgtgt ctgagccatg gccagccgct ggctggcccc
ctgatctgcc ccccttctat tgtttggatg gccatctcct gctgggcctc cctgactgta
                                                                       420
                                                                       480
aaatctctgt actgtttgtt aggtttttgg tgggaggctg tgataagttc caatgagctg
ccacttccct ggatatgtca agaagctgat ggcaacttgg ccaattctgg cagatatcag
                                                                      540
                                                                       600
gccccagtt cagcccagt caccctcttt tacacatgtg ggtcaaccac tgtgtgctca
                                                                       660
gagggtcagt cccttcctct gctgtgtttt tcttgagtcc ttgcactcac ttcccctgcc
                                                                      720
ccagtcacga tgacccctaa agcttccttt gcccttgctt tcagggcat ccctagtgaa
                                                                      780
ggggcaaacc tgagatttct ccgtggacct gacagccaag gcagggcact gtctcctgag
                                                                      840
gccagtgcca gcacgtgcat ggttcacaga aaaggatcct gggctcagaa tctcgagggg
                                                                      841
<210> 225
<211> 2128
<212> DNA
<213> Homo sapiens
<400> 225
                                                                        60
gtctacctcc gggctgaaac gtcaccatgc ctccccacag acagacggat ggacagatgg
                                                                       120
gcctccctgc acctgctctg tgggtgtggg ggctcctgct cagcagcagt ttccagaccc
ttctccctqc tttccccaaq ccacccqcct tqaatctqqq qqctctacc agacccatcc
                                                                      180
cctcatttct aaaqatttqa qccactagtc gtgtccctct ccctcagaaa tgccttggtg
                                                                       240
                                                                       300
acacttggct gctttcaact cttccaccca tctgcctctt ggtctcatct ttaccttctg
                                                                       360
ctaaaggtcc tgaccccac cccgccacg ccatggggca ccccatggtg gtgcgtcctt
                                                                       420
gggagcagct ctgtcccttt ccccgtggcc tttgccccgc ctcctatgac ttcgattccc
                                                                       480
acctgtcccc gacccctggg accactgacc gggcccgatc accctgtcac tgccctgtca
                                                                       540
tetgettace ccacaeggtg etetgetgae ccaggtettg etgteteeca acageeceae
                                                                      600
\verb"gaggettccc" gtcgctcctg" gacactgcag gctgag@cg ctgccccgcc gcctccatga
ggaaggettt teetetgtga geeceaggee accettteee teetttaagt aattaettaa
                                                                       660
gtcccttgcc agggccctcc cagtaccctt tctaaagaca cccctgcccc agcatgctgc
                                                                       720
                                                                       780
aggeteetge tecaetttee teteaggeee tegtegetgt ggtgetgeet ttgttttetg
                                                                       840
tetetgecae ggeaggggt eageteettg gaggtgggge ttetgecett getgtaceae
                                                                       900
tgcctggcac acagtaggtg ctcaataaag acttgcaggg tgagctgcct gaagaatagt
                                                                       960
caccagaggc cagaaatgtc tagagctctg ccggtagggt gactggccga ggagcctggc
                                                                     1020
ctgcatgtgt gcgtgtgtgt gtgtgtgtgt dgtgtgtga gtcagggttt atatgcaggt
                                                                     1080
gtctacagga gacatgctgg gttctgtgct gggtgtgagg aatatgggag cagaacccca
                                                                      1140
gggaggtggc agagacttgg gggccaaagg gctggggtgc aggggggcaa cagccaggtg
ccactggcca ccccagccgc agggagccct gcccaccctc caggtgcctg gatgtccaac 1200
ctcactgcta ttcccacctc aagccaggcc tggagatgga ggccccatga ctcagccagg
                                                                      1260
                                                                      1320
gccggtttgc agctgcggct gacccagacg ggcgggcagc ccccagcccc cgggcctgca
                                                                      1380
cccaggacag ggccgcctc cctccctccc ccgcttctgg ctcctaggac aggattctct
gaattcagct cccctgaggc tggggccagg ttggaggcca ggcctggggg ctctgggctg
                                                                     1440
gggtcccaga taggggctgg gcggccaggc ttggaatctg gaatccagcc ccattcctgg
                                                                      1500
catctgcagg agcctcgtgg ggagggagac ttgggatgga cttcaaccag ccagggctgg
                                                                      1560
                                                                    1620
attettgece eggaacetge attectgggg eagceaaggg atcettecea ettetggce
cagettggcc etgeetggca ttegaggece atetgggget tgggggtgte teceeaacte
                                                                      1680
                                                                      1740
tcagacataa ggacaccctt ccaagcttgt tccttcacct ggcggggccc tgagcccac
                                                                      1800
acccctcccc tgtcctttct ccatccgaca tcaagcgcct ccctgcctct gctcgcacag
                                                                     1860
tctctgagat ggggaactca gcacctcaca ggtgggccca gctctggtgc tgtctgtgtt
gggggagctg gggcagcccc caaaagacct tggagacaga ccctcagagg caggagcaga
                                                                      1920
                                                                      1980
ggctggcagt ggatgctgtg cctggaggcc ttgagggcga ggtgtgatga tgaggcccag
                                                                     2040
\verb|gctgcagggc| | tcttctggc| | tctccagctc| | cggagaacaa| | gggatttcct| | \textbf{c}tgctctgc|
                                                                      2100
ccaccctccc cagccagtgc atgctcagcc tcagcaccgc acctgggcgc cctccatgat
```

```
2128
ctgccccacc tggacacatg gctcgagg
<210> 226
<211> 956
<212> DNA
<213> Homo sapiens
<400> 226
gggctgcagg aattcggcac gagcagagac ccccacccc cagctgtcct gatgccccaa
                                                                      60
gccaaaacat aattectggc ageteeccca eteceeetee eecteactet tetgecaeee
                                                                      120
agagettgge cegectecaa cageceatgt tetaattetg cagtttecag aageecaeee
                                                                      180
tcaaacccag gtcacttccc cagcccctcc agcttctagt ccccgggtcg &cccatcct
                                                                     240
caccttcctg ggctgaaaca ccacattagg cacccagatg cctctgcatc tgaaaatctc
                                                                      300
                                                                      360
acaagcctgg atgtccctga cgccacccac tccggttctc tttctctttc tcagcctcct
                                                                      420
gtgggctcgg ttttttctgt ccaggcttaa atgcccaggt ggctgtctct gctggccctt
acttetetea eggggateet eageggeace etgggettea gteeceatgg atggageage
                                                                      480
ccacgccgcc atctcagccc caggcctgag tgtccagctg cttcccagac aacttgcaag
                                                                      540
teecteggee aacactgage teagagteet ceteeteet geeagggtge geeactaeet
                                                                      600
tecetecagt ttteaceagg tettgggtte atectgaete ceteetett eteteceegt
                                                                     660
ccctqccaca cctcactqct cacaaqaaaq acatcactqt qtccqttctc cttttttctt
                                                                      720
ttcttttctt ttttttttt ttttttgaga cagggtttcg ctctgtcttc caggctggag
                                                                      780
                                                                      840
tacagtggtg cgatcttggc tcactgcctc ccaggttcaa aaaattctca tgcctcagcc
ttccaagtag ctgggactac aggcacgcgc taccacaccc agttacattt ttttgtgtat
                                                                      900
                                                                      956
ttttagtaga gatggctttt gccatgttgg ccatggctgg tctcaaactc ctggcc
<210> 227
<211> 742
<212> DNA
<213> Homo sapiens
<400> 227
                                                                      60
gaaacctcag gcaagttcct ggccatcccc aggcctcatt ttcccacag gaagaaggaa
ataagcacac ctgtctcccc agtctccctg cctggctcac tgggcaggca aatgtgtggg
                                                                      120
aggtgattgc aaaggtacca gatttgccaa atatacgctt gcaattaaat ccaaaggcct
                                                                      180
gtcccacagt tgcttgactt tttttaaagg ccaatttatc ctcctttctt aaagactaaa
                                                                      240
caatttttcc acttcattta ttaaaataaa gctctttaac ttgcacgctt ttagacaaaa
                                                                      300
gcaacagtac totgaaatga coccatcact totcagtgag aagotgtgot coctgttott
                                                                      360
tgtgcttctt gggattgcaa gtgcggcctt tgtgagtgct ctgtgggcct ggagcagcca
                                                                      420
cacggaaagg ctcacagctg aacccagcag tagcatcacctgcctttccc caccctggtt
                                                                     480
ttttttccct ttctaatttg gggtcctctt atagctcctc aaatacaatg tactcgtgtc
                                                                      540
cctcagagcc actgcacaga ctgtcccctc tccctaaaga gaccccgctc ttatcctccc
                                                                      600
cctcccctac ccmacccagt cagccagctg aactctggtt catcttctgc atccgggtga
                                                                      660
                                                                      720
aaggtcacct teettgecag teaaceecca ceeteecact geagteatea gagatgagea
                                                                      742
gcctctaaaa cctgccctcg ag
<210> 228
<211> 1298
<212> DNA
<213> Homo sapiens
<400> 228
                                                                      60
ggcacgagct gagcccagcc cggcctgcca tcctggcaagccagggcagc atggaggtag
cacagagtgg cacccagcca gcgtgaatgc ataagaatct gcacgtgaca cagaagaaag
                                                                      120
tetetteatg aagtaggttt caetggteee agecaaacee tgtggeatgt ggeeetttet
                                                                      180
                                                                      240
geacetgetg aacatgeeat teacettgae ceaggtagtg geeteaceet eetettgete
                                                                      300
aaactggaaa cctcagcatc ctgaaatgcc tcctccccaa atccattgca cacatgtgtg
cetgtgtatg egtgtgtgt caegtgtatg aacceageee ecagetgeee actécattge
                                                                      360
```

```
420
ccctaaacag gcccctcctt ggtgtcacct ggcacatctc cactggaagc caaatggata
                                                                     480
tttctaaact gaaatctggt cccacctcag aacccttcc acagttccct taaagttcct
                                                                      540
ttcctcattt acatcaggat cttcacaatg gggacccctg gtcacctccc aacccaacaa
acgctccaaa tgagccgcca ctgcagaaac tcattatggc ccgggcagga ctggcacatc
                                                                      600
                                                                      976
caagtatctg accaggctgt tccatctgcc aggcaggtcc tgccctctct ccacccacct
                                                                      720
gtctaacccc tgcatcctca agaccctact tagctatggc cctgtgtgaa aggtccctcc
                                                                      780
ccatgtaccc acagccattt gttctctctc atgtggccct aacaggctgg ggttcctgga
gactccatgg ggagccaggc atgaagatgg catataccca tgtgtcactc cccagaacgt
                                                                      840
gagctgcctg ccctggcacc atacacaaag ggactgacag ccccagaatc ccaaggggtg
                                                                     900
cacctatgca tatgggaaag gcatgtttac gggtgagaat ggtccatcgt tgggcttcag
                                                                      960
gaggcatctg acctgacgca cgcctttgtc actttgtcct tgtggcctgt tgaaatgcca
                                                                     1020
ctcctgcttt acaaattcac caactgttgc atgagtcatt tccacctcaa tgagtaccag
                                                                   1080
gtccttgagg atggggaaaa gtaagccacc actgtggggg tcctgggctc ctaggtgcag
                                                                     1140
                                                                     1200
aagaggctcc agaaacaggc caggtcgtgg gccatgaccc cacactagcc ctctggtccc
                                                                     1260
tcacacgggt ggattggggg gctgtgtcac gggatcttag gatcttcaag acaaagaccc
                                                                     1298
aggacaagaa cacaagccca ctccattct tcacaggc
<210> 229
<211> 748
<212> DNA
<213> Homo sapiens
<400> 229
ggcacgagcg aaactgtttt ccaatgtggc tgaaccactc tgcatttcca ccagtaatga
                                                                       60
                                                                     120
gaatgagagt tgctgttgct ccacggcctc accagcattt ggtggtgtca gtgtcttgga
                                                                      180
ttttagccat cctaataagt gttagtggct atcattgttt tcatttgcaa ttctcttaca
                                                                      240
tggtgtkgaa catctttccc catgtttatt tgtcatctgc atatcttctt cggccagtta
tctgttcaga tcttttgccc gtttttgttt gcttgcatgt ttgtttgtgt ttgattttt
                                                                      300
                                                                      360
aaagaaagct ttttttatta ttgagttgta atagtgcttg tatagtgtgg ataacagttc
tctatcagat aggtcttttg caaatatttt ccccaatctg tggactgtct tctcattctt
                                                                      420
ttgataaatg gctttaaaat aataatctgg ccgggcgcag tggctcatgc ctgtaattcc
                                                                      480
agcactttgg gaggccaagg gcagatcatc tgaggtcggg agttcgagac cagctgacc
                                                                     540
                                                                      600
aacatggaga aaccccatct ctactaaaaa tataaaatta gtcgggcgtg gaggcacatg
cctgtaatcc cagctacttg agaggctgag acaggagaat ctcttgaacc cgggaggtgg
                                                                      660
                                                                      720
aggttgcagt gagccgaaat cgtgccactg tattccagcc tggacaataa gagcaaaact
                                                                      748
ccatctcaaa aaaaaaaaaa aactcgag
<210> 230
<211> 297
<212> DNA
<213> Homo sapiens
<400> 230
                                                                        60
ggcacgaggt gtgtttgtgt gtgtgtgtgg tgtgtgtatg tgtgtggtgt gtgtatgtgt
                                                                     120
gtggtgtatg tgtgtgtgt gtgtatgtgt gtgtttgtgt gtgtgtggtg tgtgatgtg
                                                                       180
tatttctttg aatgagaaat tggctcccat gattatggag ctgacaactc ccaaggtctg
caggcagcaa gctggaggcc caggagggcc ggtggtgtgg ctgcagccag tgtctgaagg
                                                                       240
cctgagaacc aggagggcgg gtggtgcagc tgcagtgtga aagccggcag gctcgga
                                                                       297
<210> 231
<211> 699
<212> DNA
<213> Homo sapiens
<400> 231
                                                                        60
gattcggcac gagaaacttt taaatcttta gttatttctt aatacttaga acacttaaac
aaaactttac aaaacaaaag agcagaataa ttagatcctt tcaggagaat atgacttttt
                                                                       120
```

```
180
tttcctaagc acactggacc atagaggaag accaaaggaa tgtacagttg cctgtcctt
                                                                      240
cctgacttgc tgtatttgac tctgtcccca ctggtggtgg caatgctatt aaccccacac
tttaacgtgg caaatcccca gaatctgttg gctggtctct ggctagagaa tgagcacagt
                                                                      300
ttcaccctta tggctccaga aagagcaaga acacaccact gccagccaga agagagaaaa
                                                                      360
gtcttgttct gtctctttcc cattgtccca aatagccaag cacaggttca accacccaa
                                                                      420
                                                                      480
atgccaccct tctgctgtgc agcagccaag gaaaagaccc aggaggagca gctccaagaa
                                                                      540
cctctgggca gtcagtgccc agatacttgc cccaattctt tgtgtccaag ccacactcag
ctgacaaaaq ccaacacttt gtctctcttt tttttttttt cttttttt gagcagagtt
                                                                     600
                                                                      660
tcactcttgt cacccagget ggagtgcaat ggcaggatet tggctcattg caacetecae
                                                                      699
ctcccgggtt caagcaattc tcctgtctca gcctctcga
<210> 232
<211> 1894
<212> DNA
<213> Homo sapiens
<400> 232
ggcacgagca gtctacctgg aaattgtcac attatacaaa tgtcaacttt tgtgtgtgtg
                                                                       60
tgtgtgtttt gttttgtttt gcggtcagag gcaagggcta aaagaaagca agatcagaga
                                                                      120
aataccaaga ggtgtttact gactaaaggg caaagggatc tatcagttaa ccaaagcaag
                                                                      180
                                                                     240
ataaatagaa ctgccaatta actttatatt ctcagaagca gtgagcaag aacgctgcct
                                                                      300
gaacaatgaa agtgttgctg caactttcat atttgctgtt gtctgcatgt aatttgtttc
                                                                      360
cttttacata gaaatatgtg gtattaacag agggatgtga ttagaatacc agcggaagct
ctctttgata ggagacacac aggcaggtgc ctaacagcct atggagatca ggacagtttc
                                                                      420
                                                                      480
tctccagtaa actcacaaat tgtggggacc atgatctgct taataagtaa aagggcaatg
gggccaagat tacaatgttg aaaacatcca ggcttcccac ctggagtcct ggcctcacag
                                                                      540
taataataag aataaagatg tattgagata tatctagacc taactatata aatagacaga
                                                                      600
                                                                     660
tagatataca cacatacaca cactgtgcta agatgcttca cagaactcc ctcatttcac
                                                                      720
cctcaaacaa ccacagggta gatggtttat caccgtttta gagataagaa aactccagtt
                                                                      780
agtacgtcac tgaagatcta cacagtgacg tagatgttgt gatagacatt tcttaaaaat
attocaatta atcotcagaa cacctgtgag aagtatacta aatatactaa gotcoatttt
                                                                      840
                                                                      900
atgaatgagg aatcagagtc aaggagacga gataacatgt cccaggtgac ggtattagcg
gtcatagcag gatttgagcc cagctctgtc tgtcttcaaa actcatgttt aggagactct
                                                                      960
totgotttcc accaaagccc ttgatttgaa cotttgctct ctcctgaatc cacacttctc
                                                                     1020
ctgaaggagg agcaaggtgg agatgggata gggcacagga tggctgactc tctgactgga
                                                                    1080
gggcctaaga aaccccactt tgacacacac acagaaaact gtgccctggg tgggggtgtg
                                                                     1140
                                                                     1200
gggcttcatg agaaaatcaa gtagcaagag agagtcttaa catgcttaga tggcatgtgc
ctgttctcct gatttaatgg atgagaaaac tgagatccag ggcaagggca gtgagatagt
                                                                     1260
gagggtctct tagaatgagt acagccttca gggacccacc ccatgtaccc gtgggatcaa
                                                                     1320
gacgagccag aggatacctc ctaagtaaga acagaaggaa cagaaaaccc ttaaggtttg
                                                                     1380
ttgttgttgt tgtgacagaa tctcgctctg ttgcccaggc tggagagcag tggcacagtc
                                                                     1440
                                                                    1500
teggeteact geaacttetg ceteceaggt teaagegatt etectgeete acceteeega
                                                                     1560
gtagctggga ttacaggcac ccgccaccat gcctggctaa tttttgtatt tttaatacag
                                                                     1620
acgaggtttc accatgttgg ccaggctggt ctcaaactcc tgacctcaag tgatccaccc
                                                                   1680
accccggcct cccaaagtgc tgggattaca ggcgtgagcc accgcacctg gcctgaaaac
acgtatcata cttgctatgt gccagacaca attctaacca cttttccaca gattaactca
                                                                     1740
                                                                     1800
gccttcaaac aatcctaaaa agtaggtatg attatttcct gcattttaca gccaaagaaa
ctgaagcaca gagagattaa gaggacttgt gcaaggtcat ggagggctat agtcctaccc
                                                                     1860
                                                                    1894
tctgaagtaa gttaaaccct ctccagaaa agcc
<210> 233
<211> 1355
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
```

```
<222> (1327)..(1327)
<223> n equals a,t,g, or c
<400> 233
                                                                      60
gcccctgctg gatggcactg tgggtaacct gcatcctttc actgtgcaca tggttctat
                                                                      120
gcctttacgg agcagactcc ttggcaaata aatgcctcag tgcaggagcc acacgcaagg
                                                                      180
cattlccctt ctgtgtcctc tttcgtgatc ttgaggtggg acttgggttt gaaggctttg
                                                                      240
tcactcacct ggcatgcaaa ctcttttgtt attgtgaact ctctgacagt gctttaagtc
tggggcacga ataaataatt ttccacacag ctcacaactg tagggcttac atccagtgtg
                                                                      300
tgtgcgttat gtctgtgtgt gtatccttat ttttttgaga cggagtctcc ctctgtcacc
                                                                      360
caggctggag tgcagtggcg cgatctcggc tcactgcaac ctccgcctcc tgggttcaaa
                                                                      420
                                                                     480
cgattctcct gcctcagcct cccgagtagc tgggattaca ggcacccacc mcacgcctg
                                                                      540
gctaattttt gtatttttag tagagatggg gtttctccat gttggtcagg ctggtctcga
tttcctgacc ttgtgatccg cctgcctcgg cctcccaaag tgctgtgatt ataggtgtga
                                                                      600
                                                                      660
cacaccacac coggtoctgt gtatgttttg agacggagtc tcactctgtc acccaggctg
                                                                      720
aagtgcagtg gcaggatctc ttctcactgc aacctccacc tcctgggctc aagtgattct
cctgcctcag cctcccaagt agctggtatt tcagacttgc accatgatgc ctggctactt
                                                                      780
tttatatttt tagtagagac ggagtttcac cagcctggtc tcgaactcct gacctcaagt
                                                                      840
                                                                     900
gatccaccca ccttggcctc ccaaagtact gggattacag acatggcca tcacgcccgg
cccctaagtg gatttttagg cattctttca ggtgggcctc tgtggtgaaa ccttttgtgc
                                                                      960
acatttcaca aacggcttct ccgctgtgtg gcatttctca gctttctcca ctgccttcac
                                                                     1020
aggaaacttc ttcccgcact cctggccgac gtcgctccct aggtgactgt gcggcaaaag
                                                                     1080
                                                                     1140
ctcagacctc aggacactgg tggctgttgt ccagcctagt gtctgcttac cccgcactca
tcccgtagtc acacgtgaag gcttgagggg tctggaactt cctggccgta gcaatggact
                                                                     1200
ttctqaactt tcttgctctt tcagaattgc gttttgaccc tgagtgtggt cgtgggtgac
                                                                     1260
                                                                    1320
togocogoct cococcogo qqtgtggtgc ctttgttctgagtcatcaca agtgccatca
                                                                     1355
tcctgancct agcwtctttc agatcaccct ctcga
<210> 234
<211> 802
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (23)..(23)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (40)..(40)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (56)..(56)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (59)..(59)
<223> n equals a,t,g, or c
<400> 234
                                                                       60
ctcacttaaa agggaacaaa aanctggaag ctcccagcn ggttggcggc ccgctnttna
actagtggaa tccccccggg ttgcaggatt cggcasgaga gaagaccgag gtggccgagg
                                                                       120
cgctgaccaa ggtgggtccc tgtctgctgc acaaccacaa acctacctct gacccccagc
                                                                       180
```

```
cccaagcett gtcactctgg cacagactgg tcccagtgtc aggcagacct ctgagcctgg
                                                                    240
                                                                    300
tcacaqactg acceptteet tetggataca ggetgatett tgteacagge cacagacete
                                                                    360
tqqacctctg gtcccagcca taagtggact gacctctctt tatggctgta tccctgctgt
                                                                    420
totggatgot cotgggggca gtgcctatag ctcagggtca tootgagatt cagctootgg
                                                                    480
agtctgagag ttgtggccac agcgcagagg ccttggcg ggggggcctg cgctgtccgc
                                                                    540
tgcagcctgg gctctgagca gtgctatccc tagaccttac tcaggggatc ctctgaactc
                                                                    600
tggccctgcc ctgcagcttg agctattttt gcacagcttt gcggtgcatg gcttttaaat
                                                                   660
ggctccataa gcagcaggct ttctgcggtg atttttttt ccatctcaca ccgtatcccc
teettqtete eceteceetg teteegaggg teeatetete tgggtetett ettgtetete
                                                                    720
                                                                    780
ctcacctcct cccgaccttt ctgcccttcc tcatctcttg gggcctgacc ctgcaggctg
                                                                    802
aggctggccg catggagctc ga
<210> 235
<211> 1382
<212> DNA
<213> Homo sapiens
<400> 235
                                                                     60
cccacgcgtc cgctgaattg cggccgtatg cgcggctctg tggagtgcac ctggggttgg
gggcactgtg ccccagccc cctgctcctt tggactctac ttctgtttgc agccccattt
                                                                    120
ggcctgctgg gggagaagac ccgccagctg cttgagtttg acagcaccaa cgtgtccgat
                                                                   180
acggcagcaa agcctttggg aagaccatat cctccatact ccttggccga tttctcttgg
                                                                    240
                                                                    300
aacaacatca ctgattcatt ggatcctgcc accctgagtg ccacatttca aggccacccc
atgaacgacc ctaccaggac ttttgccaat ggcagcctgg ccttcagggt ccaggccttt
                                                                    360
tocaqqtoca googaccago ocaacocot ogootootgo acacagoaga cacotgtoag
                                                                    420
                                                                    480
ctagaggtqq ccctgattqq agcctctccc cggggaaacc gttccctgtt tgggctggag
                                                                    540
qtaqccacat tqqqccagqq ccctqactqc ccctcaatqc aggagcagca ctccatcgac
                                                                   600
gatgaatatg caccggccgt cttccagttg gaccagctac tgtggggctc cctccatca
ggctttgcac agtggcgacc agtggcttac tcccagaagc cggggggccg agaatcagcc
                                                                     660
                                                                     720
ctgccctgcc aagcttcccc tcttcatcct gccttagcat actctcttcc ccagtcaccc
                                                                     780
attgtccgag ccttctttgg gtcccagaat aacttctgtg ccttcaatct gacgttcggg
                                                                    840
gcttccacag gccctggcta ttgggaccaa cactacctca gctggtcgat gctcctgggt
gtgggcttcc ctccagtgga cggcttgtcc ccactagtcc tgggcatcat ggcagtggcc
                                                                    900
                                                                     960
ctgggtgccc cagggctcat gctgctaggg ggcggcttgg ttctgctgct gcaccacaag
aagtactcag agtaccagtc cataaattaa ggcccgctct ctggagggaaggacattact
                                                                   1020
                                                                   1080
qaacctqtct tqctqtqcct cqaaactctq qaggttggag catcaagttc cagccggccc
                                                                   1140
cttcactccc ccatcttqct tttctqtqga acctcaqagg ccaqcctcga cttcctggag
                                                                   1200
accccaggt ggggcttcct tcatactttg ttgggggact ttggaggcgg gcaggggaca
gggctattga taaggtcccc ttggtgttgc cttcttgcat ctccacacat ttcccttgga
                                                                   1260
                                                                   1320
tgggacttgc aggcctaaat gagaggcatt ctgactggtt ggctgccctg gaaggcaaga
1380
                                                                   1382
aa
<210> 236
<211> 791
<212> DNA
<213> Homo sapiens
<400> 236
cccacgcgtc cggttctcct gcttgccatc aatggagtga cagagtgttt cacatttgct
                                                                      60
gccatgagca aagaggaggt cgacaggtac aattttgtga tgctggccct gtcctcctca
                                                                     120
                                                                    180
ttcctggtgt tatcctatct cttgacccgt tggtgtggca gcgtgggctt catcttggcc
                                                                     240
aactgcttta acatgggcat tcggatcacg cagagccttt gcttcatcca ccgctactac
                                                                     300
cgaagagccc ccacaggccc ctggctggcc tgcacctatc gccagtcctg ctcgggacat
ttgccctcag tggtggggtt actgctgttt cggaggtatt cctcgctgt gagcagggct
                                                                    360
                                                                     420
ggccagccag actggcacac attgctgtgg gggccttctg tctgggagca actctcggga
                                                                     480
cagcattect cacagagace aagetgatee attteeteag gaeteagtta ggtgtgeeea
```

```
gacgcactga caaaatgacg tgacttcagg gaagcctgga cacccgaggc acctggacca
                                                                    540
gctatgggta gttctgtggg tggaacacat tctgtgtaag agccccactg agggctctgc
                                                                    600
                                                                     660
ageggagtga cageaaccce agagatgagg caccagagag tgccactgca tgagacacct
gtgaccattc gaagtctgaa atgcgggggg ggagtttcat ttttaagtga agaccaaaag
                                                                    720
                                                                    780
791
agggcggccg c
<210> 237
<211> 2163
<212> DNA
<213> Homo sapiens
<400> 237
                                                                      60
cgcccacgcg tccgaggcgg cggagcccca gccccaccca gtgcggagcg cgccgcgagc
cccgccgyaa gctgagcgcc tccgcccgcc aggcgcgccg gcgccgggcc atgtactcgg
                                                                    120
ggaaccgcag cggcggccac ggctactggg acggcggcgg ggccgcgggc gctgaggggc
                                                                     180
cggcgccggc ggggacactg agccccgcgc ccctcttcag ccccggcacc tacgagcgcc
                                                                     240
                                                                    300
tggcgctgct gctgggctcc attgggctgc tgggcgtcg caacaacctg ctggtgctcg
                                                                     360
tcctctacta caagttccag cggctccgca ctcccactca cctcctcctg gtcaacatca
gcctcagcga cctgctggtg tccctcttcg gggtcacctt taccttcgtg tcctgcctga
                                                                     420
ggaacggctg ggtgtgggac accgtgggct gcgtgtggga cgggtttagc ggcagcctct
                                                                     480
                                                                     540
togggattqt ticcattgcc accetaaccg tgctggccta tgaacgttac attcgcgtgg
tccatgccag agtgatcaat ttttcctggg cctggagggc cattacctac atctggctct
                                                                     600
actcactggc gtgggcagga gcacctctcc tgggatggaa caggtacatc ctggacgtac
                                                                     660
acggactagg ctgcactgtg gactggaaat ccmggatgc caacgattcc tcctttgtgc
                                                                    720
                                                                     780
ttttcttatt tcttggctgc ctggtggtgc ccctgggtgt catagcccat tgctatggcc
                                                                     840
atattctata ttccattcga atgcttcgtt gtgtggaaga tcttcagaca attcaagtga
                                                                    020
tcaagatttt aaaatatgaa aagaaactgg ccaaaatgtg ctttttaatg atattcacct
                                                                     960
tcctggtctg ttggatgcct tatatcgtga tctgcttctt ggtggttaat ggtcatggtc
                                                                    1020
acctggtcac tccaacaata tctattgttt cgtacctctt tgctaaatcg aacactgtat
acaatccagt gatttatgtc ttcatgatca gaaagtttcg aagatccctt ttgcagcttc
                                                                    1080
tgtgcctccg actgctgagg tgccagaggc ctgctaaaga cctaccagca gctggaagtg
                                                                   1140
aaatgcagat cagacccatt gtgatgtcac agaaagatgg ggacaggcca aagaaaaaag
                                                                    1200
tgactttcaa ctcttcttcc atcattttta tcatcaccag tgatgaatca ctgtcagttg
                                                                    1260
                                                                   1320
acgacagcga caaaaccaat gggtccaaag ttgatgtaat ccaagttcgt cctttgtag
aatgaagaat ggcaacgaaa gatggggcct taaattggat gccacttttg gactttcatc
                                                                    1380
                                                                    1440
ataagaagtg tctggaatac ccgttctatg taatatcaac agaaccttgt ggtccagcag
                                                                    1500
gaaatccgaa ttgcccatat gctcttgggc ctcaggaaga ggttgaacaa aaacaaattc
ttttaattca acgggtgctt tæataatga aaaaaccact tgtggcacac gatgggcatc
                                                                   1560
taacatcatc atcttctaat gtgttggaga ttttcatttc aaatatattt tttaaattac
                                                                    1620
tctattttcc aaaacacgta atgcattttt ctcgaaaata ccttactgta aaaataactg
                                                                    1680
tcgcgtacac atgtgtgaag tagctagaac atactgaatt ttttttgtac tgtggactc
                                                                   1740
tattcagtgt catgtcctat atctgatcaa gttatcaagg agataattct agaatgaaaa
                                                                    1800
agaaaatcct cttgttggaa acaaaagacg ttttatatgt gcagtatgac aaagaggagt
                                                                    1860
                                                                    1920
ttcagagaca actttgaatc cttgtcagcc tggagaccag caccagagga atctacaagg
                                                                    1980
caaactccca tatatttgct tcccccaaat tgctgcccct acagactcaa agctcttttt
                                                                    2040
ctttgttttg ttgtttctct aaaaatttac tgttctttgt cgatgctata taagccaggg
agttctaaga cgccagctct ttgagatttg ctcattcccc tgtatttccc acatatatat
                                                                    2100
tacatatacc cgctaataaa tttatgtttg ttttaaaaaa aaaaaaaa aactcgaggg
                                                                   2160
                                                                    2163
ggg
<210> 238
<211> 2087
<212> DNA
<213> Homo sapiens
```

<220>

```
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<400> 238
ncccacgcgt ccgctgttgc tcaaaggaaa taggagttgg tgtgcttgtg accaaggggt
                                                                       60
tacacttcca gcttttaaaa ttctccttta catgtgctca gtgttttgtt ttgtgttttg
                                                                      120
                                                                      180
gtttctgttt tttattttaa ttcccacatt gggcacaaga atcagaatat ggatagctag
tttaagaaac ttttgtgggt gcactgtagc atagatgaca gaatttgag ttccccccat
                                                                     240
ctccaattca gttcagggca ttccacagtt aaacagaaat gggaacgtgg ggctcttata
                                                                      300
aatgaaatgg gcgctcacag ttttggtttt cagctcttca tgtctgtaag tgtgctttgg
                                                                      360
gggaggctat gtctgtatgg tcgattctca gttatcacat ttgcctctcc tcccactacc
                                                                      420
ttcatqqaca ttcaqtqctq tttcqcactq caqttaqaqa gaaqqqacqq acaqttqqtq
                                                                      480
acactcagcc acattgctac ttttatctgt tctggtaaga agttagatag atggtagatt
                                                                      540
                                                                      600
gaagcaattg ggtagaatta gttgggggaa tatttatgag ttgctgtgtt tgttgattag
ttccatctct ttcccatttt aactgagaat tgattatata tgctctaag tatataggta
                                                                     660
                                                                      720
tttaaacaac cccacaagcg gctgtatcag taacatttat taattccact atagtgaggg
aggatttcca ttctaaatac cttattttga gggatttata aaacttagtt gtaaaagaga
                                                                      780
aagcccacat agtgggaata aattgcttca gccattttta gtatttgaga gcactaggga
                                                                      840
agatgtttag tagctgtgtg gatgcctttt ttcacaccct gtctattgaa tgctgcatcc
                                                                      900
                                                                      960
attcacgaag ttaaatgtta catgcagtta gtccttaatg tggactggat ctgtactttt
                                                                     1020
gttttggatt aaaacattta aagatttttg aagtgcagct actccccacg tggcatttga
                                                                    1080
tacacataaa agtcatactg tgtgtgcaca aagagtæat ggattttcca gcatattgct
ttaaaaaatt atataaactg ttaaaatatt aacacctcag gctacctgct gtattctgtc
                                                                     1140
                                                                     1200
ccattgaccc ctggaattgg atttactgca agtgattgat aattcaatta tgtggctttt
cccctttaat cttgccattt aaattacagt agaaagacaa aatcaagtaa aataaagtgt
                                                                     1260
tagataatag aaagagtgtt aagaccagcc cacttttctc atgtttatgt tctttcattt
                                                                     1320
                                                                     1380
ggaccaagaa totoogcatg gaggttgatt tgccactggg gactttggct aagactatta
                                                                     1440
ggtttgcttt caactagatg ttcctgagac aagcagaggg acactgcaat tccccttcca
                                                                    1500
tgcctgctgt tctcccccat gtaagtcttc ttgaaatta acggatgtgt ctcctttgga
acagececat aacaaaagag aactaetgat etgageatag gaaagtagag getetaceae
                                                                     1560
                                                                     1620
ttttcagttg aaaaagcaag actttctctg tgtttctgaa acaaggcata atgttgtcac
agaatcagag atccagtctc acttttccac aaatctccaa atctccagtc ttatcttgtg
                                                                   1680
tgctctaatg gtttggttca atccctttcc aactcttgtt ttcaaagcat ggggcctgag
                                                                     1740
tgttctccac tcctcctaag aaaggagctt gggtggaagg gaccatgctg acctcctcca
                                                                     1800
tcagagggct cttccagtag tattctcgga tgcaacctcc atttctcagt taccattatt
                                                                     1860
tectgtatea getttgteet teetgæggg atgeacagtg atceggeeca ceactgttgt
                                                                    1920
                                                                     1980
tgtcttgtgc ttctgctctt tcctatggtt tcaggttatt ttctgggttt cccctattct
tcttttattt ccttttttt ttatatttgc tttcctttct actgctttta gatttgcagg
                                                                     2040
agatgcaagt ttcagctcaa tgtttggctt ctctcaatat ggaaatt
                                                                    2087
<210> 239
<211> 830
<212> DNA
<213> Homo sapiens
<400> 239
                                                                       60
ggcacgagta aggactgtgt tctttatgca tttcttgatc caggcatggc agttcctctt
ttcctgtaca tattcacact cctgccactt ctaccctttc tcttatccct ctgctttca
                                                                      120
                                                                     180
cctctgactg taaaaagaag tagcactcc gaaagcaaga gttccctatg aacacggaag
                                                                      240
aagacattgg caacttttga gtacaacaac tatatttaat agagtaattt aagaacatca
gccagtgaat tttatacaag atagtgaaag agaaaaggaa gattaattag gggtagttta
                                                                      300
ggatgccatt aaatagccta gaattagggg agtagtcgtt gaatagaaag gaggccaaa
                                                                     360
                                                                      420
atttgaggga tataagctaa gaattggtaa gccaagaaga aggaaaaggt ttgggcagta
                                                                      480
aggataatga ggaacaaaat agagaactca gaagcaatat ctgactgtta tcattggaag
aattttttg cttgcttgag gctggatatt gaagtggatc aggatacttg agtgactatc
                                                                      540
                                                                     600
tgatgggctt ttggaactag ctctcaagag gtgaaaatta gcttttttt cttttcttt
```

```
660
cttttttttt ttttttgagg caaggtctca ctgttgttga ggctgaacct cctgggctca
                                                                    720
agcagttgtc ccattgcagc ctcctcagat actctgtaag ccaaggcagg gggaatattt
                                                                   780
tgtgctcagt agtttgaggc tgtggtgagc taagatcaca ctgctgtgct æcttcagcc
                                                                    830
<210> 240
<211> 1939
<212> DNA
<213> Homo sapiens
<400> 240
gaacacaaac atgcagtctg tagcagatgg taataggctg ayatattaca cttgttgatg
                                                                      60
taaatctgat aggtttcttt ctctccaagg acagcttttt aaatatttaa cagtatcaat
                                                                    120
                                                                    180
aatttttcag tttctgtgag aattttataa tttataattt gcagacttaa tgtataatct
                                                                    240
attttqtcct aacaattaca aatatattt ttatttcaqa ttrtatatat tcctaccaga
                                                                   300
tggagataat tacagcttta aaaattttta ttttttcatt ttatttcacacattgacatt
                                                                    360
aaatttttat ggacacataa taactgtaca tatatatggg gtagaatgtg atgttttaat
                                                                    420
acatgtactc aatgtgtaat gatcaaatca gggtaatttg cataatgatt tttctgtagg
gagaaaattc aaaatctact cttctggcta ttttcaaata tataatatgt tattgttaac
                                                                    480
tatactcatc ctactatgca ataggacacc agaacttatt cctgggttct acatccgtta
                                                                    540
                                                                    600
aggcaaccaa ggattggaaa tattggaaaa aaaaattgcg tctgtactga acatgtacag
                                                                    660
acttttttct tgtccttatt ccttacacaa tatagtacaa taactatttg catgacattt
                                                                    720
acatcggata ttatgagtga tctagagttg atatgaagta tatggagga tgtgcaaagg
tgatgtgcaa atactatgtc attttatatc agggacttga gtatcctttg ttaycctcag
                                                                    780
                                                                    840
gagatectga aacyagteec ceatggatae tgagggetga etgtatagte etateeteae
ggaactttca ttctaatgrg ggaagactga ctataaacaa aatatatgta ataggtggtg
                                                                    900
                                                                    960
gtaagtaccg tggagaagta acaaatgggg caaagtgagt tatacagctc catycttaga
                                                                   1020
aaccttggag tacttttctt agtttatact cgtggtggtt tccttttgtc tcctttatta
catgggactc tgacatgtgc ccatagctag ggtggcagta ggatctaccc gaaaagcgtc
                                                                    1080
                                                                   1140
ctgctgatac aggaccaaag catcctgttg ttctcgagcctataaaaaga gctaatggtc
                                                                    1200
ttgcttctct taactgtggc ctcctacact gtgttttgga tgattggtga tgtcttggat
                                                                   1260
attctgtttc tttggaactt tgaatataca acactttact agggaattag caatggaagc
agagcaaaga tgtacagagg aaacaatgcr taactctgat ggaattgaag tcatgaggca
                                                                   1320
                                                                   1380
gcagagagct taaattasag ctttaaaaat ttttattttt tagagggaat ttamttggga
                                                                   1440
gtaacagcag taatagttaa cggagccaga atgcttgagt catataattg caaagcagag
ttgggagcaa cagatgctaa agagtagttg ctgtagttcc tctttgggtc gtaggagcag
                                                                    1500
ttgtcatrtt mctatayagc tactgcatga agamagttc ttagtgaggc ctgggtgaac
                                                                   1560
                                                                    1620
agetettett agtattetgt gtgaccecat tygacetttt aacaaatece taagtaaata
                                                                    1680
aataqcccct magqwaaact aaqtttttct ctgctgtttt tttgcttgag agagctataa
ctgtaataga cttatatttc tgaacatttt agtgcttgcc aatatttggt aatatttatg
                                                                    1704
                                                                    1800
tttcctatat ttgtaatgaa cattcttctt cmggtacatt tyttgttaaa ttattgttts
                                                                    1860
atgsataaaa gttcaccttt tattgtataa aattgactca gattaattta tacacattga
caatgggtaa atagagtttt tcagattatt aaaagctgaa ggatgcccat gtaagcaaaa
                                                                    1920
                                                                   1939
aaaaaaaaa aaaactcga
<210> 241
<211> 1126
<212> DNA
<213> Homo sapiens
<400> 241
ggcacgagat tgcctacaaa tgtcagaggt ataatggttt ggttttcatg ctggcttctc
                                                                      60
acacagtcca tcacagtgat tcttggagcc agagggaggt atggaagact gtgtgttctc
                                                                    20
                                                                    180
caagggaggc actgtggtct ggtggataag agtgggagtc ccaatccttt ctccgcagat
                                                                     240
gtgctagctg tgcactctgg gcaagtttct cactctcctg agcctcagcg tctttatcaa
                                                                    300
tatgacgaga ataaatacag cacctgccta cctcatgggg ttgtttcagc agtcaatgag
atcatgtata tgaagcattt agtatacca gcacctaata aaagctcaac aaccagtagt
                                                                    360
```

```
cttattacta acaaaatqqa qctaqaaqga tgcattaqtt taaacaaaat cttgaggcag
                                                                      420
                                                                      480
atactqqqaq tacctqtctt tattcttcaa cttqaqtctc ctcccaqttt gtttggataa
                                                                     540
aaactcaaat gtaatatttt taatttgggt aaaagaactt ctgagaaagg gttgaacac
                                                                      600
tatccacttg cctttttatg cctagggaac tagagatact tgttggcggc atcgcaaatg
                                                                      660
ttgctgactt atgaagtact gcagtatctg aatacctttt tgtaggataa tctaaagttt
                                                                      720
ccaaaaaata gtatagtgtt gtagtgaaga acttggactc ttaagccaga ttattttgtt
                                                                     780
cagattcaga aatcccctcc accaccca ctggctgtat agccttgccc aaatcactga
                                                                      840
atctctgtgt gtctgcgtcc tggtgtgtga aatgaggaca atagtagcta ttgggtaggg
ttggcctggg gtctaagtga tgactgcctg taaggtgttt agaacagtat ttggtaaaca
                                                                      900
actggcactc aatcagtgtt gctgtgatta tgatgattta ttccaaggtt gctgctttc
                                                                     960
                                                                     1020
cagtacatca tagactacta cttgaccaaa tttactagca atggagtacc tgaaagtttt
                                                                     1080
acatgtgcac atttgcatga aaaccccaca aaatttccct ttgaacagtg aaggggacgg
                                                                     1126
cacaaagata attcttggca ctaagcttaa aaaaaaaaa aaaaaa
<210> 242
<211> 851
<212> DNA
<213> Homo sapiens
<400> 242
gctcccacag ataattgaga atatgcagta tttggttttc tgtgtctgct ttagtttgcc
                                                                       60
                                                                      120
taggatattg gcttctagct gcatccatgt tgcagcaaaa gacacaattt tattctattt
                                                                     180
tatggctgtg tagtattcca tggtgtgtat gtaccacatt ttctttatac agccaccat
                                                                      240
tgatgggcac cagggttgat tttatgtctt taaatatgtg ctgcaatgag aaaaaacata
                                                                      300
ttttctacaa aatqataqaa qtttaaaaqq acaaqtttat qqqttaqcta attggcttcc
cattttattc tctaattctc ttatattgac acttcttgag atttaatgtt gtttgccagg
                                                                      360
                                                                      420
aacatggtac tggtattgtg ttggtaaaca gtaagcggta gaaacaatgg tgataacata
                                                                      480
gattcataca caatgtgctt ttaattcttt gaaaaaatag aataaattca ggagtgaatt
                                                                      540
gctttgtaag ttgttatttt taaaacttac ctgcaatgaa agaggactgt cctcctcgca
                                                                     600
gaactagaga agggtgacaa gccatctccc tattcactga ttggattcc agtgctacta
                                                                      660
gttttgtgtt actgaaaatc acttgagata attctgttct atgtgcaaaa aagcmaaaaa
gtagaattta gaaatccagg cctgctaata gctattagcc atctatttat tgttctgatt
                                                                      720
ttttttttt tttttgagat ggaatctcgt tccagcctag gcgacagagt aagacctgtc
                                                                      780
tcaaaaaaaa aaaaaaaaa aaacctcgtg ccgaattcga tatcaagctt atcgataccg
                                                                      840
                                                                      851
tcgacctcga g
<210> 243
<211> 1462
<212> DNA
<213> Homo sapiens
<400> 243
                                                                      60
ggccatcggc ggggcagtcg cgggatgcgc ccgggagcca cagcctggc tttagcccat
                                                                      120
gaggaggatg tgaccgggac tgagtcagga gccctctgga agcatggaga ctgtggtgat
tgttgccata ggtgtgctgg ccaccatctt tctggcttcg tttgcagcct tggtgctqqt
                                                                      180
ttgcaggcag cgctactgcc ggccgcgaga cctgctgcag cgctatgatt ctaagcccat
                                                                      240
tgtggacctc attggtgcca tggagaccca gtctgagccc tctgagttag aactggacga
                                                                      300
tgtcgttatc accaaccccc acattgaggc cattctggag aatgaagact ggatcgaaga
                                                                      360
                                                                      420
tgcctcgggt ctcatgtccc actgcattgc catcttgaag atttgtcaca ctctgacaga
gaagettgtt gecatgacaa tgggetetgg ggecaagatg agaetteag ceagtgteag
                                                                     480
                                                                      540
cgacatcatt gtggtggcca agcggatcag ccccagggtg gatgatgttg tgaagtcgat
                                                                      600
gtaccetecg ttggacceca aacteetgga cgcacggacg actgeeetge teetgtetgt
                                                                      660
cagtcacctg gtgctggtga caaggaatgc ctgccatctg acgggaggcc tggactggat
                                                                      720
tgaccagtct ctgtcggctg ctgaggagca tttggaagtc cttcgagaag cagccctagc
                                                                      780
ttctgagcca gataaaggcc tcccaggccc tgaaggcttc ctgcaggagc agtctgcaat
                                                                      840
ttagtgccta caggccagca gctagccatg aaggcccctg ccgccatccc tggatggctc
agcttagcct tctacttttt cctatagagt tagtt@tct ccayggctgg agagttcagc
                                                                     900
```

```
tgtgtgtgca tagtaaagca ggagatcccc gtcagtttat gcctcttttg cagttgcaaa
                                                                     1020
ctgtggctgg tgagtggcag tctaatacta cagttagggg agatgccatt cactctctgc
                                                                     1080
aagaggagta ttgaaaactg gtggactgtc agctttattt agctcaccta gtgttttcaa
gaaaattgag ccaccgtcta agaaatcaag aggtttcaca ttaaaattag aatttctggc
                                                                     1140
                                                                     1200
ctctctcgat cggtcagaat gtgtggcaat tctgatctgc attttcagaa gaggacaatc
                                                                     1260
aattgaaact aagtaggggt ttcttctttt ggcaagactt gtactctctc acctggcctg
tttcatttat ttgtattatc tgcctggtccctgaggcgtc tgggtctctc ctctcccttg
                                                                    1320
caggtttggg tttgaagctg aggaactaca aagttgatga tttcttttt atctttatgc
                                                                     1380
ctgcaatttt acctagctac cactaggtgg atagtaaatt tatacttatg tttccctcaa
                                                                     1440
                                                                   1462
aaaaaaaaa aaaaaactcg ag
<210> 244
<211> 2410
<212> DNA
<213> Homo sapiens
<400> 244
                                                                       60
ccacgcgtcc gcttcgacga cgacacctgc agaagtgcgg agcccgccat gccgcgccac
ctctcgggac tgctcctgct gctctggccg ctgctgctgc tgctgccgcc gacccccgcc
                                                                      120
                                                                     180
gccccggcc ccctggcccg cccgggtttgcggaggctgg gcacgcgggg cccagggggc
agtcccgggc gccgccctgt ctctgctgtc cccacccgcg cgccctattc cggggccggc
                                                                      240
                                                                      300
cagcccggcg gggcccgagg cgcaggtgtt tgcaggagca ggcccttgga tttggtgttc
atcatcgata gttcccgcag tgtgcggccc ctggagttca ccaaagtgaa gacctttgtc
                                                                     360
tcccagataa ttgacactct ggacattggg gcggcagata cacgggtggc agtggtgaac
                                                                      420
                                                                      480
tatgctagca ccgtgaagat tgagttccat ctccagaccc actcagataa acagtccttg
                                                                      540
aaacaggctg tggctcggat cacacccctg tctacaggca ccatgtccgg cctggctatc
                                                                      600
cagacagcaa tggatgaggc ctt@cggtg gaggcaggag ctcgggggcc cacttccaac
atccctaagg tggccatcat cgtgacagat gggaggcccc aggaccaggt gaatgaggtg
                                                                      660
                                                                      720
gcggctcggg cccgggcatc tggtattgaa ctctacgccg tgggcgtgga ccgggcagac
                                                                     780
atggagtccc tcaagatgat ggccagcgag cccctagacg agcacgtttt ctattgggag
                                                                      840
acctacgggg tcattgagaa actctcctct agattccagg aaaccttttg cgctctggac
ccgtgtgtgc ttggcacaca ccggtgccag cacgtgtgtg tcagtgatgg ggaaggcaag
                                                                      900
caccactgtg agtgcagcca aggctactcc ttgaacgccg atcagaagac gtgttcagct
                                                                      960
atcgataagt gtgctctgæ cactcacggt tgtgaacaca tctgtgtgaa cgacagaact
                                                                     1020
                                                                     1080
ggctcttacc actgtgagtg ctacgaaggt tacaccctga accaagacag gaagacttgt
tcggctcaag accaatgtgc ctttggtaca catggctgcc agcacatttg tgtaaatgac
                                                                     1140
                                                                    1200
agagatgggt cccatcactg tgaatgctac gagggttata ctctgaatgctgacaacaaa
                                                                     1260
acgtgttcag ttcgcagcga gtgtgctggg ggctcgcacg gctgccagca cctgtgtgtg
gacgacgggc ccgcggccta tcactgcgat tgtttccccg gctacaccct gaccgaagac
                                                                     1320
cggaggacgt gcgcagccat tgaagaagca cgaagactcg tctctacaga agatgcttgt
                                                                     1380
gggtgtgaag ccacctggc cttccaggag agggccagct catatctgca gagactgaat
                                                                     1440
                                                                     1500
gccaaactcg atgatatttt gggcaagttg caagcagatg cgtatggaca aatacatcgt
                                                                     1560
tgaattactc agattttca cctggatata cggagagctt ggtctattta atatttttgc
                                                                    1620
atacttcaat gttcctgcta ataatttgcc attgcaaatg cttbatatt actggataag
                                                                     1680
tagtatgagg atcttctaga gaatcagtag gacataaacg ttcacatcct taagagcaaa
                                                                     1740
ctttagtgtc tctaagctat gactgtgaaa tgattcatgg ggaatagaat gaaaagtttg
                                                                     1800
gtatctcttt atttaccaat tgagccattt aatttttaaa tgtttatatt agtaagataa
ccattcttac aatgggaact ttttatctat tttctcttga tagtatttat agtataaacc
                                                                     1860
agttttatta ttgagagtgt aaattataca agtatttaca cataaaaaag ttcatataat
                                                                     1920
                                                                     1980
tgaggtaaat ataatttaga actgtttctt taatgctttg ttttttgctc actttttgct
                                                                    2040
ggaatatcac tgaagctgtg atcaggggat tataacaca atcaagatca agtgaacact
acatgaaata ttgtaagaaa cacataacta aagactttag ttttgaatta agtgttataa
                                                                     2100
                                                                     2160
cttcttacca agttttggta aaaaatccta cattatcttt actgtttcac tttaggattc
                                                                     2220
aatcaagaaa attatatact tataaatatt gatctaaaaa gttaacaaca aacccaatgt
                                                                     2280
cgccatttta aagtttaagc ttaacttttc ttcacttaca tatttagtat atgtatttta
                                                                     2340
tttttccgct tgaaagctta tagctcttag gagaaaacca tcctttaaat tgtgactact
cattttttct gtttgtattg tctttagtat aataaaaagt tactatcttt ataaaaaaaa
                                                                     2400
```

960

```
2410
aaaaaaaaa
<210> 245
<211> 2131
<212> DNA
<213> Homo sapiens
<400> 245
tcgacccacg cgtccgcgga cgcgtgggcg gacgcgtggg cgcggcctcc cggcgctcgg
                                                                  60
ctccgacccc gccgccgcca ccatgcagcc ccccagcctg ctgctgctcg tcctcgggct
                                                                 120
gctcgctgcg cccgccgccg cgctcgtccg aatcccgctg cacaagttca cctctgtgcg
                                                                 180
ccggaccatg tcggagttgg ggggccccgt ggaggatctg atcgccagag gccccatttc
                                                                 240
                                                                 300
aaaatacgcc cagggggtgc ccagtgtggc ggggggtccc gttccggagg tgctcaggaa
                                                                360
ctacatggac gcgcagtact acggggagat cgcatcggg acgcccccgc agtgcttcac
cgtcgtcttt gacacgggct cctccaacct gtgggtcccc tcgatccact gcaagctgct
                                                                 420
ggacatcgcc tgctggatcc accacaagta caacagcggc aagtccagca cctacgtgaa
                                                                 480
gaacggcacc agcttcgaca tccactacgg ctccggcagc ctctccgggt acctgagcca
                                                               540
                                                                 600
ggacaccgtg tcggtgccct gtaagtcggg tctgtcgagc ctggctggcg tcaaggtgga
gaggcagacg ttcggggaag ccaccaagca gccgggcatc accttcatcg cggccaagtt
                                                                 660
cgacggcatc ctgggcatgg cctacccccg catctcggtc aacaatgtgc ttcccgtctt
                                                                 720
tgataacctg atgcagcaga agctggtgga gaagaacatc ttctctttct acctgaacag
                                                                780
                                                                 840
ggaccccggc gcgcagcctg ggggtgagct catgctgggc ggcacagact ccaagtacta
caagggtccc ctgtcctacc tcaacgtgac ccgcaaggcg tactggcagg tccacatgga
                                                                 900
acaggtggac gtgggcagca gcctgaccct gtgcaagggg ggctgcgagg ccatcgtgga
                                                                960
                                                                1020
cacgggcacc tcgctcatcg tgggccccgt ggacgaggtg cgcgagctgc agaaggccat
                                                                1080
cggggccgtg ccgttgatcc agggcgagta catgatcccc tgtgagaagg tgtccacctt
                                                                1140
gcccgaggtc accctgacgc tgggcggcaa accctacaag ctgtcgtcag aggactacac
gctcaaggtg tcgcagggcg ggaagtccat ctgcttgagc ggcttcatgg gcatggacat
                                                                1200
cccccgccc ggcgggccgc tctggatcct gggggacgtc ttcatcggcc gctactacac
                                                                1260
cgtgttcgac cgggaccaga accgcgtggg cctggccgag gccaccaggc tctagctgcc
                                                                1320
1380
cccctgccgc acacactcac gctcagactc acactcaaag cccagctctg caggcgccgg
                                                                1440
1500
tagagggcgg ggtgcggggc agcagccact aggctgaccc cgagtctgga gccacgtcac
                                                                1560
tgactgggaa gccccægcct ggctcggccg cccatcgtct tgcacgcggg accccctccc
                                                                1620
ccggcccagg tagttccccc cccccccc agcccgtgct tcgggggcct ggctgcccag
                                                                1680
gcaggacttc tggactgagc ccccacccca ggccaggctg ttctctgggc ttctcctcct
                                                                1740
ggggtctggt ctggggtcca gagcggggca ctgctggcct gtcttccgt gtggcccatc
                                                               1800
gtggaaggga cccgccgagg cccaaggaca agcaggaagg gcttggaagg gtcgggactc
                                                                1860
agggacaaaa ggcagccttg tgatgccttt ggggtcctcc tggggcttga ccccatctag
                                                                1920
                                                                1980
gagggcattt gctggtgccg ggttggggaa gaaggggagg ggggggctgg tgccaccttc
                                                                2040
tgtgagcttt tcccctcttg agtgaccagg agccgaagtg aacgtggaaa tacagtcgtc
                                                                2100
2131
aaaaaaaaa aaaaaaaaa aaaaaaaaa a
<210> 246
<211> 2406
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1934)..(1934)
```

60

ccacgcgtcc gcggcggcga aggcaacaat taaggccccc aggtggactg gcagcgcccg

<223> n equals a,t,g, or c

<400> 246

```
ctgatgctac tactgcagtc tttattttt cccatgagct gggggtcggg tggggggggg
                                                                     120
                                                                     180
aaagggaggg atgaccttcc tagggagaag cccacgacct gtcctgtctt tgatcgcctc
                                                                     240
tttgacattt ttgccaaaat accactagtg gaaagtcagg ctagctgtgc tcgtattgga
atagcagect caeactggeg tetggactgt tetgtagatg gaatgcaage ggactgtetg
                                                                     300
tctttaatct aacttattgc tagagaatag ggtttbaga cgaaaagaaa actgaaacgg
                                                                    360
gattggccct cattcagtga gttctgtggt tccagtaagg atttgtatgt acatacgctc
                                                                     420
ttgtcttacg ttttgggtac tcttgtctca tctgttttag ctgtgcgttt cttttcaggg
                                                                     480
tgtactcgac cagccatgga ctagtgtaaa tcccgaacgg acagacttgg aacataaggc
                                                                     540
gcgttgatcc ttatggttta ggcctggcca gtttcccgag tctcggatta gctgacagta
                                                                     600
ttaacactaa attgcagttt acagtatttc tacatgacag ccatacgtaa catcaagcca
                                                                     660
ttgattgtgt attttccttt gctagtttac tttggctttg catccgtagt cagccttatc
                                                                     720
caggttgggt tttgctgttc gccgtctcccaggccacaag gcttgcctga ggggaatcgc
                                                                    780
agctcctttt aggttttggt attaggtgct tggcaggtgg ctgtgggatt tgtacccttc
                                                                    840
                                                                     900
ttcctcttaa ctcaaatcca ccgcaaaaat gatgaatcac tttaatagaa acgttaaaca
                                                                   960
ccacaaaaat agagaaaatt caggtctgta tgtcattgat tgtgttgata ttttcagaga
                                                                    1020
actectgatt tttaagetge caegeteett eeteagggat eaegetgeea teaetettga
gtgttccccg ctggaccttc tgctggtggc tctcgggacg gtggagacgc cgttgagctg
                                                                    1080
                                                                    1140
gagaagctgg gcagtcatct tgaggaaggt tgtggtgcag tgtgtggaaa tttaggtgct
agaagcttac tggtagaaaa acccæaagg aagagaagag ctcttctgtt cataagcgct
                                                                   1200
ctgtccgatt tcgggagcct cgtaagcatg tccgtttttc ctccccggaa acactccttc
                                                                   1260
cctaagcagt tgttgtagga aaacgaacta aaggcattat cagataataa atcactccta
                                                                   1320
                                                                  1380
tttgaccaag actttttcta cattttttt ttttcttttt aatgaaagca tcaaaggag
                                                                   1440
agagteettt etetettgta eagttgaeac atgetetgga ategaaggaa aetaegttge
tgtttccaca aatttgttct cagtttagcc ttaggtcctt cattcttatt ttggaaaaat
                                                                   1500
ctgtctgaaa aacgtgacct gtcgagtgtg tgttcagcct ttctttacaa gaccagaaac
                                                                   1560
ggtgtgaact cccgagatat ggaggtaata acgccagact cgctttgttg gttgctgcgg
                                                                   1620
tttagtcaag gagaggtatg aggaataatt gaggaaacac tgactgttgc tttttgctct
                                                                   1680
                                                                   1740
ttaccagaat cggacttaag agttgggaaa tgagtatgtg tgacaggatc caggtgaccg
                                                                   1800
tgaggatgag aacagtgatg ccctggagca tggcacagtc tacccagcatgactttcctt
                                                                   1860
agaaggttcc ctccatacgc tagagcaaaa gtcccaatta actgaaccct agcagaacta
gaagagaget gtacagettt tgtgccatca eeggggeeet aaagteaatg eeatggatgg
                                                                    1920
gaaattatgg gggnttgggg gggaggggta ggtggggctt tccttaactt atcttcatgt
                                                                    1980
ccagtgagca gtgttttgtc cttccttgta gcctttggaa atgatttact ggaattacaa
                                                                   2040
aacctatttt ttcttttaaa tttcagcttt ggctctggct gctttttaga ataatgcaag
                                                                   2100
ataacagtta tacctgaggg ctaaaaatga agagggaacg ggagacttga tatttaagca
                                                                   2160
gcttgaatgg tttcttttct tttctttatt tttaaagaaa tgcactgcc tctgatactg
                                                                   2220
tetetecagt gaaatgatta eteeteeatt aetetattga tacaatattg tgeatgetag
                                                                   2280
tgttgtattt ctatacagta gcttgaaatt tattaactta tactgtaggt gttatgtatt
                                                                    2340
2400
aaaaaa
                                                                   2406
<210> 247
<211> 1491
<212> DNA
<213> Homo sapiens
<400> 247
ccacgcgtcc gggagccatg gcgccgtccg ggccgctgct gctggtgctg ctcgtgccgc
                                                                      60
tggeegeege gegggeeggg cectaettee gteeeggeeg gggtgeege etgeeeetge
                                                                    120
                                                                    180
ggggggacca gctgtcgggg ctggggcgca ggacctaccc ccggccgcac gagtacctgt
ccccatctga cctgcccaag agctgggact ggcgcaacgt gaacggggtc aactatgcca
                                                                     240
gtgccaccag gaaccagcat atcccccagt actgtggctc ctgctgggcc cacggcagca
                                                                     300
ccagtgccat ggcgggaccg gatcaacatc aagagaaagg gggcgtggcc ctccaccctg
                                                                    360
ctgtccgtgc agcacgtcct cgactgcgcc aacgcgggct cctgtgaggg gggcaacgac
                                                                     420
ctgccggtgt ggaggtacgc ccatgagcac ggcatcccgg acgagacctg caacaactac
                                                                     480
caggctaagg accaggaatg caacaagttc aaccagtgt gaacatgcac ggaattcaag
                                                                    540
                                                                     600
gagtgccact acatccagaa ctacacgctc tggaaagtgg gtgactacgg ctccctctcc
```

```
ggcagggaga agatgatggc ggaaatctat gccaacggcc ccatcagctg cggtatcatg
                                                                    660
                                                                    720
gccacggaga agatggtgaa ctacacggga ggcatctacg cggagtacca ggatcaggcc
                                                                    780
tacataaacc acgtcatttc tgtggtcggc tggggcgtca gcgacggcac ggagtactgg
gttgtccgga attcgtgggg ggaaccgtgg ggggagcacg gctggatgag gattgtgacc
                                                                    840
                                                                    900
agcacctata aagacgggca gggcgccagt tacaacctcg ctgtcgagga cacctgtacg
                                                                    960
tttggggacc ccatcgttta agggacaggt ctcccagaa gagcagtgtt atcgtgaacc
                                                                   1020
ataatcaggg ggtcctatcg ctctgggcac tgggttggtt ccaccatggt ctgaagggac
                                                                   1080
tggggactgg catcaaacgt gtctgatggc tgctcgcggc cccgtgcgcc cagaagggag
aaggggcgcc tgtcagcaca cagcctgccg cggcgccggc cgggagcgcg ctcctgggga
                                                                   1410
agagtetgea atgggaegge tgagageece gggeeggeea etgeeetgee eeagtgtetg
                                                                   1200
                                                                   1260
cctqqccacc gtgtgatccg caaggcccaa acgatgtgac tgccaagctc ctctgtccct
                                                                   1320
gatttggtgt ttcctgtctg gcagctgtgg tccatgatgt ggtgcggaag cccaggcttc
                                                                   1380
tcaaagctct tacgttgcct gggattcgt gggggggagt cggggggtgg agggagaaga
cggccctgtg agattgccca agtgatgaat aaagtacgtg accccgcaaa aaaaaaaaa
                                                                   1440
                                                                   1491
<210> 248
<211> 571
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (249)..(249)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (548)..(548)
<223> n equals a,t,g, or c
<400> 248
tcgacccacg cgtccggggg cgtacgcggg caagatggag gcgactacgg ctggtgtggg
                                                                      60
                                                                    120
ccggctagag gaagaggcgt tgcggcgaaa ggaacggctg aaggccctac gggagaaaac
                                                                     180
cgggcgcaag gtgagaagtg tggagtgagg gtcgcagttg aggcgtccag cgttcggggt
                                                                     240
ccgggtcgcg cttgaggaga gcaaagggct aataaggaaa gacagctgcc gagggcgcgc
                                                                    300
atgccgggnc gctaacgcat gcgcgagaag acgggcgccc tcccacgatg tcqgggctg
                                                                     360
cttggcgtgg gactcctctg gcgctggtgc ggtcgtcgcg cacgcgcggg ggtgggcaar
gcatggtcag cgacccgcag tccatctgac tcctgcttcc cgggtgttgc tcgtgtaggt
                                                                     420
atctagggct gcctgtaggt tcagatgctt gttgggttag gcgtgatttg ttccgttcct
                                                                     480
ctatggccta gctggtctt aacccccgcc ttcgattctg agtcagacag actccccagt
                                                                    540
                                                                     571
tcgggcangc aattcccttg gaacaagggc a
<210> 249
<211> 2499
<212> DNA
<213> Homo sapiens
<400> 249
caccagcacc ccgcccagag cagtgccgct gcccaaatcc tcgcaggcag ctatcaacg
                                                                     60
                                                                     120
caattgcaac teeggetgga geeeggace tgcaageetg ggtgteegtg ggtcegtetg
                                                                     180
cccagccatc tgctggtggc acctctccct cctgccgcct ccctcggtga accccacctt
                                                                     240
gcagaagtgc agctcgcccg gagcagccca ggagctcagc atgcgtcccc caggcttcag
                                                                     300
gaacttettg etgetggegt cetecettet etttgetggg ttgteagetg tteeteaaag
                                                                     360
cttctcgcca tctctgagga gctggccggg cgccgcctgc aggctgtccc gggccgagtc
ggagcgacgc tgccgcgcac ctgggcagcc cccgggggcc gcgctgtgcc acggccgggg
                                                                     420
ccgctgcgac tgcggcgtct gcatctgcca cgtgactgag ccgggcagt tcttcgggcc
                                                                    480
```

```
cctgtgtgag tgccatgagt gggtgtgcga gacctacgac gggagcacct gtgcaggcca
                                                                      540
tggtaagtgt gactgtggca agtgcaagtg tgaccaggga tggtatgggg atgcttgcca
                                                                      600
qtacccaact aactgtgact tgacaaagaa gaaaagtaac caaatgtgca agaattcaca
                                                                      660
                                                                      720
agacatcatc tgctctaatg caggtacatg tcactgtggc aggtgtaagt gtgataattc
                                                                      780
agatggaagt ggacttgtgt atggtaaatt ttgtgagtgt gacgatagag aatgcataga
                                                                      840
cqatqaaaca gaagaaatat gtggaggcca tgggaagtgt tactgtggaa actgctactg
                                                                     900
caaggctggt tggcatggag ataaatgtga attccagtgc gtatcaccc cctgggaaag
                                                                      960
caagcgaaga tgcacgtctc cagatggcaa aatctgcagt aacagaggga cttgtgtatg
tggtgaatgt acctgtcacg atgttgatcc gactggggac tggggagata ttcatgggga
                                                                     1020
                                                                     1080
cacctgtgaa tgtgatgaga gggactgtag agctgtctat gaccgatatt ctgatgactt
ctgttcaggt catggacagt gtaattgcgg aagatgtgac tgcaaagcag gctggtatgg
                                                                     1140
gaagaagtgt gagcacccac agtcctgcac gctgtcagct gaggagagca tcaggaagtg
                                                                     1200
                                                                     1260
ccagggaagc tcggatctgc cttgctctgg gaggggtaaa tgtgaatgtg gcaaatgcac
ctgctatcct ccaggagatc gccgggtgta tggcamact tgtgagtgtg atgatcgccg
                                                                    1320
                                                                     1380
ctgtgaagac ctcgatggtg tggtctgtgg aggccacggc acatgttcct gtggtcgctg
                                                                     1440
tgtttgtgag agaggatggt ttggaaagct ctgccaacat ccgcggaagt gtaacatgac
ggaagaacaa agcaagaatc tgtgtgaatc agcagatggc atattgtgct cggggaaggg
                                                                     1500
                                                                     1560
ttcttqtcat tgtgggaagt gcatttgttc tgctgaagag tggtatattt ctggggagtt
                                                                     1620
ctgtgactgt gatgacagag actgcgacaa acatgatggt ctcatttgta cagggaatgg
aatatgtagc tgtggaaact gtgaatgctg ggatggatgg aatggaaatg catgtgaaat
                                                                     1680
ctggcttggc tcagaatatc cttaacaattacatgagaga ggtctggatt cttattttt
                                                                    1740
ctgggccatt agaacatata aatgcgaagg aaaccatgta tattcaccac taggacaggt
                                                                     1800
taaaaagacc attgtatgtt tttctatttc tgaattacga atgaaatccg agtacctatt
                                                                     1860
agaaatgagt tatgcaaatt tagatgcaaa taacattaga aaaaaaagat tcttccataa 1920
ttaacataag tggttcctaa cgagagcaat ttttccaccc aaaagtcatt tggcaacatc
                                                                     1980
                                                                     2040
tacaqacaat tttgattgtc acactgggtc gggtaggaag gtatgctgca gacatttggt
                                                                     2100
gggtagaggc cagggatgct gctgagcatc ccgcagtgta caggacagcc cccaaacaag
                                                                     2160
gaattatcca gccccaaatg ccaatagggc tcagactgag aaacattgag ttatatggct
attagaaatc cacattctta cacaagaaag accatattag aatctaagga aaacatgcat
                                                                     2220
                                                                     2280
attcacatta attaatcgat cagatttttc cagaattccg tatcagtcac cattttaata
tggggacaat gaagacaagc acacaggagg tagaatatca gagtggggct ggatcæggg
                                                                    2340
caaaaactgg tcattaagtc atctgacatt aaatcattta gccactaagt tatttgtgta
                                                                     2400
ctctcacttt aaactcacca aagaagattc tcttaaagaa attatgaaaa atgtacaatt
                                                                     2460
                                                                     2499
taacatttta aataaatagt gacagaagtt gtttaaaaa
<210> 250
<211> 3530
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (30)..(30)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (59)..(59)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (79)..(79)
<223> n equals a,t,g, or c
<221> misc feature
```

```
<222> (3465)..(3465)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (3471) ...(3471)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (3485)..(3485)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (3487)..(3487).
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (3505)..(3505)
<223> n equals a,t,g, or c
<400> 250
gacatgaagc caaccggcac ccggccccan atttgttata acagtactct aatttgaanc
                                                                       60
catgataaaa ataaccatnc atttgtaaat ccacagagga ccctggtgaa ttcctaacac
                                                                     120
atattttctg tcttgttaag ctgttgaatt gcatcatggt ggagaaatgt gtaaatagaa
                                                                      180
                                                                      240
gtaatgatct tggtgtttgt aaaaggggta tttgaaaggt tcccgaaagt gtgaggggc
                                                                     300
tgatagcaga tctgcagctt ctccccccgt gcactaaagc caatcataat tcttctacc
                                                                      360
tggtttgtgt catcctccat taggagaccc catcttcaga accaatggag gaagaggaag
atgacgactt ggagctgttt ggtggctatg atagtttccg gagttataac agcagtgtgg
                                                                      420
                                                                      480
gcagtgagag cagctcctat ctggaggagt caagtgaagc agaaaatgag gatcgggaag
caggggaact gccgacctc ccgctgcatt tgctcagccc tgggactcct cgctccttgg
                                                                      540
                                                                      600
atggcagtgg ttctgagcca gctgtctgtg agatgtgtgg tatcgtgggt acaagggaag
                                                                      660
ccttcttctc caagaccaag aggttctgca gcgtctcctg ctccaggagc tactcctcca
actocaagaa agccagtato ttggctaggt tacagggaaa accaccgaccaaaaaagcca
                                                                     720
                                                                      780
aagtcctgca caaggctgcc tggtctgcca aaattggagc cttcctccac tctcaaggga
caggacagct ggcagatggg acaccaacag gacaagacgc tctggtcttg ggcttcgact
                                                                      840
                                                                      900
gggggaagtt cctgaaggat cacagttaca aggctgctcc cgtcagctgt ttcaagcacg
                                                                      960
tcccactcta tgaccagtgg gaggatgtga tgaaagggat gaaggtggag gtgctcaaca
                                                                     1020
gtgatgctgt gctccccage cgggtgtact ggatcgcctc tgtcatccag acagcagggt
                                                                     1080
atcgggtgct gcttcggtat gaaggctttg aaaatgacgc cagccatgac ttctggtgca
acctgggaac agtggatgtc cacccattg gctggtgtgc cateacagc aagatcctag
                                                                    1140
                                                                     1200
tgcccccacg gaccatccat gccaagttca ccgactggaa gggctacctc atgaaacggc
tggtgggctc caggacgctt cccgtggatt tccacatcaa gatggtggag agcatgaagt
                                                                     1260
                                                                     1320
acccetttag geagggeatg eggetggaag tggtggaeaa gteeeaggtg teaegeacte
                                                                     1380
gcatggctgt ggtggacaca gtaatcgggg gtcgcctacg gctcctctac gaggatggtg
acagtgacga cgacttctgg tgccacatgt ggagcccct gatccaccca gtgggttggt
                                                                     1440
cacgacgtgt gggccacggc atcaagatgt cagagaggcg aagtgacatg gcccatcacc
                                                                     1500
ccaccttccg gaagatctac tgtgatgccg ttccttacc cttcaagaag gtacgagcag
                                                                    1560
tctacacaga aggcggttgg tttgaggaag ggatgaagct ggaggccatt gaccccctga
                                                                     1620
                                                                     1680
atctgggcaa catctgcgtg gcaactgtct gtaaggttct cctggatgga tacctgatga
tctgtgtgga cggggggccc tccacagatg gcttggactg gttctgctac catgcctctt
                                                                     1740
cccacgccat cttcccggcc accttctgtc agaagaatga cattgagctc acaccgccaa
                                                                     1800
                                                                     1860
aaggttatga ggcacagact ttcaactggg agaactactt ggagaagacc aagtcgaaag
ccgctccatc gagactcttt aacatggatt gcccaaacca tggcttcaag gtgggcatga
                                                                     1920
agctggaggc cgtggacctg atggagcccc gg&catctg tgtggccacg gtgaaacgag
                                                                    1980
```

```
2040
tggtgcatcg gctcctcagc atccactttg acggctggga cagcgagtac gaccagtggg
                                                                     2100
tggactgcga gtccccagac atctaccccg tcggctggtg tgagctcacc ggctaccagc
                                                                     2610
tccagcctcc tgtggccgca gaaccggcca caccgctgaa ggccaaaagag gccacaaaga
                                                                     2220
agaaaaagaa acagtttggg aagaaaagga aaagaatccc gcccactaag acgcgacccc
tcagacaggg gtccaagaag cccctgctgg aggacgaccc tcagggtgcc aggaagatct
                                                                     2280
cgtcggagcc tgttcctggc gagatcattg ctgtgcgtgt gaaggaagag catctagacg
                                                                     2340
                                                                    2400
tggcctcgcc cgacaaggct tcaagtc@g agctgcctgt ctccgtcgag aacatcaagc
aggaaacaga cgactgagcc ttcctgcctc cagcctggct tctagctgga agccagccca
                                                                     2460
gcgtttctct accaccacca ccatgcctcc acctgacttt ggcttggaga ctgatcctct
                                                                     2520
ctgtgtaaat tctgcccggt gctgtgaagg ctggacggtg gaggacctgc tggggtctc
                                                                    2580
tgggacccgc ctgttgcttc tgccctcccc tgtggaaagg tctatatgac gggccgcctg
                                                                     2640
aggccccaga actcgtctgt gaaccacctt ttccagccag agttcccaaa gctggaacgc
                                                                     2700
                                                                     2760
tagetgeetg etetteetta agatggeete eeceegaeee geeaeggeee teagttgeea
gggatggggc caccactgtc acactgtgga atacaagaca gtgaactctg tctgcctgaa
                                                                     2820
                                                                     2880
cgagtcatgt aaattaagtt ctagagcagc tctctgagca ggataaggtc ccctgacagt
                                                                     2940
gagttgtgtg gtgggggcag cctctgcctc aaaaattcac caagcagaat gcctctcagc
                                                                    3000
ctcatgtgtt ggtcctctgc tcctcctagc tccccaggga tgttggggac ccgcttgtc
teggeageta agaageagtg accaggatgt ggattttgge gacetgtgtg gtggeettga
                                                                     3060
gctgctttct gtgtttgtga ggactgactc ccatttccta aaggaaatgc ccccggggag
                                                                     3120
gacattggga ggaagatggc ctgagtgtgc actttggctc tgctacctgc tcctgaagcc
                                                                     3180
ccgctaaaaa taattcatc aagattcctt tgtagttaaa gggtccagtt ctgactggag
                                                                     3240
                                                                     3300
cctctagaga gctgggcttg tatgttcttt tggccttttg ttcctaccta aatgaagaaa
                                                                     3360
ccatgcctgg aggggccgtg aacacagaac cctcaagaca aggatgacag agctggagga
cacatctagc tgccattgca acctcactgg gctccccaga ctctgtggt gagaaattaa
                                                                    3420
                                                                     3480
accecetget tgettgagte cegtttgtta aggattette tattneettg neagatttgt
gttcngnacc ccacccccc acctngtggt attcggttca gaaagggcca
                                                                     3530
<210> 251
<211> 1145
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (386)..(386)
<223> n equals a,t,g, or c
<400> 251
aattcggcac qagqacatat tggccattta ctctactaat aaaagagtac tatctactca
                                                                       60
gtgtcattta ctgttactgt agtaattaat gcctttggaa gaatcttttg aaatagttct
                                                                      120
                                                                     180
caaattggta ccactacttg gtttggaatt atttttttt ctttcataa tcaatggtta
                                                                      240
tataaatgta tattgtccta gtcagtattt tatatatgct aaggactcac tagctggctt
ggcactaata cctcaataaa aggaatactt cttttggaat catgaaacaa aagtgartaa
                                                                      300
acctccaagt tatttttcca accaaccttc tttgaaaaat cttggatgag tcactcaaat
                                                                      360
                                                                      420
caagacatgt tataaaatta tctgtnattt tggtagaaca tatacattgt yctaataata
atttycaaat attcagtgka acygtaagka tgagaataca ggttgaatat cycttatcca
                                                                      480
aaatgcttgg gaccagaagt cttttggatt ycaaattttt aaatatttac atcatactta
                                                                      540
                                                                     600
ccagtttaac atccctaatt caaaaattca aaattcaga tgctccaata atcgtttcct
ttgascatca tgtcagtgct caaaaagttg cagattttga ggtatttcag atttttgaat
                                                                      660
taggaagact caacttgtac tatcattcta tagactttat gattgggtag actacatgag
                                                                      720
                                                                      780
tattgaaccc agaaatcatt gtctagcaaa agccagtata gtgattaatt accctgtgac
tattatataa tgttcaaaaa agctaacata ttagaatgtc cttagcgtgc agagagcaaa
                                                                      840
cagagacaaa aagaaaagtt accctgaaaa gtttgtcaga aaaatagaat atcagacgct
                                                                      900
raactactca tccagaattt tgtcraaaaa gaaaaataag ataaaattca ctggtagaca
                                                                      960
aaaagtagta acataccagt ttgtaatttc tcægtttcaa accatgaata tgtatttgta
                                                                    1020
                                                                     1080
taccaaaaat catttcagga gtcagagaag gaggatatgc cttttatgtg gagactttaa
acataaaatt ggaaaaaaaa aaaaaaaaaa actcgtaggg ggggtcccgt acccaatcgt
                                                                     1140
```

1415 cctgt <210> 252 <211> 2214 <212> DNA <213> Homo sapiens <400> 252 gcagtcgcag catgctttcc gaggaagccg gtgttgccga gattgccaaa atgctttgga 60 gtttttaact gaatctaaga aaagtccaaa atagatttga gactgtaaaa acagaaactg 120 cagcaagggg gattcagtgc caatgcatca a@aaaaaga caaccagagt tagtggaagg 180 240 aaatcttcct gttttcgtgt tccccacgga gctcatattt tatgcagatg atcagtcaac 300 acataagcaa gtgttgacac tgtacaatcc ctatgagttt gccttaaagt tcaaagtttt 360 gtgtactact ccaaataagt atgttgtcgt tgatgctgca ggtgcagtaa agcctcagtg ttgtgtggat attgtgattc gtcatcgaga tgttcgatcc tgtcactatg gtgtaataga 420 480 caaattccgt ctccaagttt ccgagcaaag ccaaaggaag gctttgggga agaaaagagg 540 ttgttgctac tcttctccca tcagcaaaag aacaacaaaa ggaagaagag gaaaaaagat 600 taaaggraca tttaackgaa aktttattt ttgagcagtc gtttcaacca ggtcttatca caatggccat acttagaaca tgagcaagga tttcaattga cttctgaagt aaatctgtct 660 720 tgaaaatatg aatgtggact gccttttatc tctatttcac tccattaaca tgcaacaaac tattgaatga tttcaaataa ttgcaaatgt ataatatata ttttaaatta taatttabt 780 840 tgaaggactg cagaacatta ttttacagac agcaaggatg cttctgagtg acacctagga aattatttga agaaattott tttatatota yacotgttgt gtaagaaact ttaaaacatt 900 kgttattttc tcaccttttt ttctaattca ctttgattgc taggggtcat gtatgcttcg 960 1020 aagttacagg actaaaagag caaactgacc ggcctaaaac taaaatgaca tttattccct 1080 agctacaaac atcagcgtta ttatgttaat tataccttgc cctctatcat tataaatggt tgccatggtg tttctaaaaa taagtgtttt accattaatg tgtagagggc aaacaaagca 1140 taaagtacta agggatcatg cttatcctag ggtctcacag aagagaggac aatttaatt 1200 aatcttgtga attacagaac aggttgtggt ccagacacca agaatcatag gggttttttt 1260 1320 ttaaaaaacc taatagaagt agggtgacct ctctctttgg tctaagagtt ctaaaggaag gtaggcatct gtttaattag ttggttcacc ctggctttac ctctggttaa tgctttgtgt 1380 taataggaag gaaaaatcac tttatctttt cttccaagcc cctccctgcc tgacttaccc 1440 agactgggat taccagatac caggtgattt atgtggagat gatttttcac ctttaaactc 1500 taagccaagt gtaagaaact cttgatagct atgtctattt tatatcagtc actgagactt 1560 1620 ttttttaagt ttttatttat tattaagaca actttgccaa aaaagtccc taagcacaac tatttacatt totttatago otottotgat ototaacaca tatgoagttt taactgttat 1680 tttcatagta actgatcttt tgtctaagga tttttacctg aaagcacaat gtattgagtc 1740 tcttgaaaat catctttcag atctttttac agaatgaact tatgcactgc tactgtagta 1800 ttctcaagga atatatgtaa acacaaatgt atgcctgagg ttggtttttg cagaaaacag 1860 tctctgcttc taaaaacttc tatgtctagt cttccatagg aaatcctcac tgtttaacca 1920 tgtgaggagc ctaagtcatt aaacggatca tgtctgtaca ttgtgtaatg aatgaaaagc 1980 acataaatgt aatctacttt gaactttgta aaaatgatgt \$ggaggcta ttcttgtttc 2040 tccatctcaa gtcctgtgtg tgcacgtgtg tgcaagtgca catgtgtgtg tgtaataaca 2100 2160 cattgtaaag aacagaaatt actttaaaaa ataaacagaa atggagacct gaaaaaaaa 2214 aaaaaaaaa aaaaaaaaa aaaaaaaaac tcgagggggg gtcccgtacc caat <210> 253 <211> 2527 <212> DNA <213> Homo sapiens <400> 253 60 ctcttgctac cttcccggcg cagagaaccc cggctgctca gcgcgctccg gggtcatgga 120 gatccccggg agcctgtgca agaaagtcaa gctgagcaat aacgcgcaga actggggaat 180 gcagagagca accaatgtca cctaccaagc ccatcatgtcagcaggaaca agagaggtca 240 ggtggtgggg accagaggtg gctttcgtgg ttgcacagtt tggctaacag gcttgtctgg agcgggaaag actactgtga gcatggcctt ggaggagtac ctggtttgtc atggtattcc 300

```
360
atgctacact ctggatggtg acaatattcg tcaaggtctc aataaaaatc ttggctttag
                                                                      420
tectgaagae agagaagaga atgttegaeg categeagaa gttgetaaac tgtttgeaga
tgctggctta gtgtgcatca caagtttcat atcaccttac actcaggatc gcaacaatgc
                                                                      480
                                                                      540
aaggcaaatt catgaaggtg caagtttacc gttttttgaa gtatttgttg atgctcctct
gcatgtttgt gaacagaggg atgtcaaagg actcacaaa aaagcccggg caggagaaat
                                                                     600
taaaggtttc actgggatcg attctgaata tgaaaagcca gaggcccctg agttggtgct
                                                                      660
gaaaacagac tcctgtgatg taaatgactg tgtccagcaa gttgtggaac ttctacagga
                                                                      720
acgggatatt gtacctgtgg atgcatctta tgaagtaaaa gaactatatg tgccagaaaa
                                                                      780
taaacttcat ttggcaaaaa cagatgcgga aacattacca gcactgaaaa ttaataaagt
                                                                      840
                                                                      900
ggatatgcag tgggtgcagg ttttggcaga aggttgggca accccattga atggctttat
gagagagag gagtacttgc agtgccttca ttttgattgt cttctggatg gaggtgtcat
                                                                      960
taacttgtca gtacctatag ttctgactgcgactcatgaa gataaagaga ggctggacgg
                                                                    1020
ctgtacagca tttgctctga tgtatgaggg ccgccgtgtg gccattcttc gcaatccaga
                                                                     1080
gttttttgag cacaggaaag aggagcgctg tgccagacag tggggaacga catgcaagaa
                                                                     1140
ccacccctat attaagatgg tgatggaaca aggagattgg ctgattggag gagatcttca
                                                                   1200
                                                                     1260
agtcttggat cgagtttatt ggaatgatgg tcttgatcag tatcgtctta ctcctactga
                                                                     1320
gctaaagcag aaatttaaag atatgaatgc tgatgctgtc tttgcatttc aactacgcaa
cccagtgcac aatggacatg ccctgttaat gcaggatacc cataagcaac ttctagagag
                                                                     1380
gggctaccgg cgccctgtcc tcctctcca ccctctgggt ggctggacaa aggatgacga
                                                                    1440
tgttcctttg atgtggcgta tgaagcagca tgctgcagtg ttggaggaag gagttctgaa
                                                                     1500
tectgagacg acagtggtgg ceatetteee ateteceatg atgtatgetg gaccaactga
                                                                     1560
ggtccagtgg cattgcagag cacggatggt tgcaggagcc aacttttaca ttgt4gacg
                                                                   1620
agaccetget ggcatgeete atceagaaac agggaaggat etttatgage caagteatgg
                                                                     1680
                                                                     1740
tgccaaagtg ctgacgatgg cccctggttt aatcactttg gaaatagttc cctttcgagt
                                                                     1800
tgcagcttac aacaagaaaa agaagcgtat ggactactat gactctgaac accatgaaga
ctttgaattt atttcaggæ cacgaatgcg caaacttgct cgagaaggcc agaaaccacc
                                                                    1860
tgaaggtttc atggctccca aggcttggac cgtgctgaca gaatactaca aatccttgga
                                                                     1920
gaaagcttag gctgttaacc cagtcactcc acctttgaca cattactagt aacaagaggg
                                                                     1980
                                                                    2040
gaccacatag tetetgttgg cattletttg tggtgtetgt etggacatgetteetaaaaa
cagaccattt tccttaactt gcatcagttt tggtctgcct tatgagttct gttttgaaca
                                                                     2100
                                                                     2160
agtgtaacac actgatggtt ttaatgtatc ttttccactt attatagtta tattcctaca
atacaatttt aaaattgtct ttttatatta tatttatgct tctgtgtcat gattttttca
                                                                     2220
agctgttata ttægttgtaa ccagtagtat tcacattaaa tcttgctttt tttcccctta
                                                                    2280
aaaaaagaaa aaaattacca aacaataaac ttggctagac cttgttttga ggattttaca
                                                                     2340
agacctttgt agcgattaga tttttttttt acattgaaaa tagaaactgc ttcctttctt
                                                                     2400
ctttccagtc agctattggt ctttccagct gttataatct aaagattct tatgatctgt
                                                                    2460
gtaagctctg aatgaacttc tttactcaat aaaattaatt ttttggcttc ttaaaaaaaa
                                                                     2520
                                                                     2527
aaaaaaa
<210> 254
<211> 978
<212> DNA
<213> Homo sapiens
<400> 254
ggcacgagca cttaatctca ggtgaacgca tcacttgcca aactgttgga atgctatttg
                                                                      60
tgttttgttg cactgttttt ttcgtttgtt tgtttgttta tttggttggc tttttggaga
                                                                      120
gggaaatttg gaaacgggac atacacaaaa gttacacacc cacattccct ttttatcatg
                                                                      180
acatacaaga agaaactagc agagctaaga atggagtgaa gaaggcagt atggcaggca
                                                                     240
                                                                      300
ccagcaaaga gttgagggct gttgctctta aaaattattt tttttattat tattttgaaa
                                                                      360
gtatggaagt tttccattca ctggggaaag gagggaaaag tgcatttatt tttatacaga
gttacttaat tacctccaaa acacatatgt tggaaatcgc ttttgctggt gcaaagtata
                                                                      420
ttaatgagca ggaatacata cattgaggtt atgaatagag agctcaattt gtacctttgc
                                                                      480
                                                                      540
tgtcttgctc aagcttggta tggcatgaaa actcgacttt attccaaaag taacttcaaa
atttaaaaata ctagaacgtt tgctgcgata aatcttttgg atttttgtgt ttttctaatg
                                                                      600
                                                                     660
agaatactgt ttttcattac ctaaagaaca atttgctaa catgagaaat cactcacttt
                                                                     720
gattatgtat agattacata ggaagaacaa tcacatcagt aagttatagt ttatattaaa
```

```
780
ggtaattttc tgttggctca taacaaatat accagcattc atgatagcat ttcagcattt
tccaaggtac caagtgtact tattttgttg ttgttgttgt tgttgtattt tagaaggaat
                                                                      840
                                                                      900
tcagctctga tgtttttaaa gaaaaccagc atctctgatg ttgcaacata cgtgtaaaat
gggtgttaca tctatcctgc catttaaccc cacagttaat aaagtggctg aaaataataa
                                                                      960
                                                                     . 978
aaaaaaaaa aaaaaaaa
<210> 255
<211> 813
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (283)..(283)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (691)..(691)
<223> n equals a,t,g, or c
<400> 255
gcaggaattt ctacctatat ttccttcctt actgtgttgt gtgtgtttgt atgtgtgtgt
                                                                      60
gtttaatttg tagcatttgc cagtttctgt ggtgtaaata ctcccactac agctgttttc
                                                                      120
aagctaacat tgtgatacca caaaaaatgg aattgggaag gcacaatcaa gattaacaag
                                                                      180
                                                                      240
ccagtttaga ccaagacaat ttttctgccc tattagttgg gcacaagtta gaaaggctga
                                                                      300
tagtatctca tgttggaaag gtgagagaga aggccctcat gcnttattaa tggcatatgc
attgaagtgc cctgtttgag ggcatgctgt tagtaacttt taaaatatga gatgtcatac
                                                                      360
tttttgactg aaaatacaac tcttgtagga ttctatttta tagaactact taggtgcata
                                                                       420
aatatacaaa aataactgtc attgcagcat tatttgtaat agtggaaaca gaagacttt
                                                                     480
cattaataag agaatggtta ggccagatcc agtggctcac acctgtaatc ccaacatttt
                                                                      540
gggaatccaa ggcaggagga tcgctttagc ctaggagttg gagaccagca tgggcaacat
                                                                       600
aacaagacct tgtctctact aaaaaaaaat aataataatt agtctggcat ggtggcacac
                                                                       660
                                                                      720
ctgtactccc agctacttgg gæggctgggg ncaaggagga ttgcttgagc ccaggagatt
gaggctgcag tgaactgtga tcacaccact gcacaccagc ctgggtgaca cagcaaaact
                                                                       780
                                                                       813
ctgtctcaaa aaaaaaaaaa aaaaaaactc gta
<210> 256
<211> 665
<212> DNA
<213> Homo sapiens
<400> 256
                                                                        60
ggcacgagaa actccagtta atgccattta ttttgcttct tgtttgctta acctccctgc
                                                                       120
cttctagggg ttataatgag aagaaactaa cagacaatat tcagtgtgag atttttcaag
ttctttatga agaagccaca gcatcctaca aggaagaaat cgtgcatcag ctgcccagta
                                                                       180
ataaaccaga agagctagaa aæaatgtag atcagatctt gaaatggatt gagcagtgga
                                                                      240
                                                                       300
tcaaagatca taactcttga cttataaggc tagctactta ataatcactc ttgttgatat
                                                                       360
ctctgccgac atcatagaaa ttgttcaagt gtcagtaaca ctttattaaa atcatgttgc
agaaccagca ggtggatagt atataggttt atgcctgtgt ttcttttctc cagagaaag
                                                                      420
                                                                       480
ctaaacatga aatataatga atatagtaat tattaaggga ttgagacaaa aactgtgatt
                                                                       540
ttaatactta aattgctaaa gaataaataa atctgacaaa atgggtggat atcttttaag
                                                                       600
tttattacag aaaaaaatgc agatgatctc ttaaaataaa actaaagata aagcaaaaaa
aaaaaaaaa aaaactogta gggggggcyc cggtacccaa tcgccctatg agtgagtcgt
                                                                       660
                                                                       665
attac
```

```
<211> 1739
<212> DNA
<213> Homo sapiens
<400> 257
                                                                   60
ggcacgagag atcctcagga tatctttagc caaaggaaaa gctccgcatt c\mathbf{c}acctggg
                                                                   120
gggaaagctg gattgccatg ggcacgaagt agtggtgcag agtccctggc catcctgaat
                                                                   180
atccagaatg gtgtttctga agttcttctg catgagtttc ttctgccacc tgtgtcaagg
                                                                   240
ctacttcgat ggccccctct acccagagat gtccaatggg actctgcacc actacttcgt
qcccqatqqq gactatgagg agaacgatga ccccgagaag tgccagctgc tcttcagggt
                                                                   300
                                                                   360
gagtgaccac aggcgctgct cccaggggga ggggagccag gttggcagcc tgctgagcct
caccetgegg gaggagttea cegtgetggg ceaceaggtg gaggatgetg ggegegtget
                                                                   420
ggagggcatc agcaaaagca tctcctacga cctagacggg gaagaggct atggcaagta
                                                                  480
                                                                   540
cctqcqqcqq gagtcccacc agatcqqqqa tqcctactcc aactcqqaca aatccctcac
                                                                   600
tgagctggag agcaagttca agcagggcca ggaacaggac agccggcagg agagcaggct
                                                                   660
caacgaggac tttctgggaa tgctggtcca caccaggtcc ctgctgaagg agacactgga
                                                                   720
catctctgtg gggctcaggg acaaatacga gctgctggcc ctcaccatta ggagccatgg
                                                                   780
gacccgacta ggtcggctga aaaatgatta tcttaaagta taggtggaag gatacaaatg
ctagaaagag ggaatcaaat cagccccgtt ttggagggtg ggggacagaa gatggggcta
                                                                   840
                                                                  900
catttccccc atacctacta tttttttata tcccgatttg actttgaga atacatctaa
                                                                   960
tgtacattat ttatgtgatt gttatggaat tgtcacctgg aaagaacaat tttaagcaat
                                                                  1020
                                                                  1080
gtcatttcta gatgggtttc taattctgca gagacacccg tttcagccac atctaaaaga
gcacagttta tgtggtgcgg aattaaactt ccccatcctg cagattatgt ggaaataccc
                                                                  1140
aaagataata gtgcataget cettteagee tetageette acteetggge tecaaaaget
                                                                  1200
atcccaqttq cctgtttttc aaatgaggtt caaggtgctg ctttgcatgc ctgccaaccc
                                                                  1260
                                                                  1320
atggaagttg titcttactt citticictc tiattatta accaiggict gagagtigti
                                                                  1380
tttgttctat gtaacagtat tgccacaaaa ctataggcaa atcgtgtttg cagggagatt
tctgatgcct ctgtgggtgt gtgtaagtta aagtggccac atttaagaag gccaagcttt
                                                                  1440
                                                                  1500
gtagtggttg cacagtcaca ctgatatgct gatttgctct ttctcattgt atgtctatgc
                                                                  1560
tttgtcatca gtgctatagt aaattacaaa gaaataggta gattgtatga acatacccac
aaatgcctat gatttaggtt accaatgtat tctttctcat ttggggtttt gcttctgtct
                                                                  1620
                                                                  1680
gtctgtttat tggaaacttg tacttcaagt agggggaatc ctaattctaa taactcctta
                                                                  1739
<210> 258
<211> 1139
<212> DNA
<213> Homo sapiens
<400> 258
ggcacgaggt cactcctaat gtaggatggg acgattgccc caagctctgt cgtgagtggt
                                                                    60
                                                                   120
tgattgacgg ttttcttaag ggaacaatgc tgggaaagat gataggcgcc cgccaCtgac
ccctcccgcc tccctgcccc tccagtaaac tcccacacaa aatagcagta tgaggtgtgg
                                                                   180
                                                                   240
ggaaataatc ttggcctccg tcctgggttt acttttgact ctgccaccta caagctgtca
                                                                   300
cctgaacaag tcctttccgt tcctgtgtct tccctggtca caagctctaa gcctgaaccc
                                                                   360
acactetggg aatgaagcag ggtageggeetetgetteag caactetgag gggtetaeet
                                                                   420
tgggtgggga gttggcctca tccagagggc tgctggaggg ccaagacaag gctctggtgg
ggaggtgtgc tgagagggga ttgcttatcc caccaccagc ttttctgggg gaggtgggga
                                                                    480
                                                                  540
agtgatggtt aaaaaatgga gttcctgcta tcagccatgt cctgatgaat tggaaagtcc
                                                                   600
cettettet cettteetet tgeateteet geetgettee eetgeetgee eteetgtgae
                                                                   660
atgtgccctc tccagcaggt atgtcacaca gcaccccaag ggaagggcag tgtaacgctc
                                                                   720
ttttccatga tggactacca cagccagagg aagacaggcc ttcccttctt ttctagttct
ttttggtttg aaaacaaggc actdtattt tccccttcca agaagctggt ggttcacacg
                                                                   780
ggccagcaca cacattatca aagacctagt ttgtttctag taaatgagtc cattgaagtg
                                                                   840
                                                                   900
ggagccttgg ccgggcaagg tggctcacac ctgtaatccc agcactttgg gaggccgaga
tgggtggatt gagatcgaga ccatcctggt caacatggtg aaaccctgtc tctataaaa
                                                                  960
```

```
atacaaaaat tagctgggcg tggtgacaca cacctgtagt cccagctact caggaggctg
                                                                   1020
                                                                   1080
aggcaggaga atcgcttgaa cctgggaggc ggaggtaaca gtgagccgag attgcgccac
                                                                   1139
<210> 259
<211> 1677
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1012)..(1012)
<223> n equals a,t,g, or c
<400> 259
ggtgcagtgg tgccatcaca gttcactgca gccttgacct cccgggctca agcaatcctc
                                                                     60
                                                                   120
ccacctcage cacttgagta getgagacet cagatatgtg ccatcacacccagetgattt
                                                                    180
tttaaaatta attttttgta gagatagggt ctcatatgtt gcccatgctg gtctcaaact
actgggttca aatgateete etgeeteage ettecaaagt actgggatta eaggeatgag
                                                                    240
ccaccatgcc gggctgggag gcggaatttt gttcagtcta aagataagct ttttcatagc
                                                                    300
tctggctgta gtgggaggga gcagaggagt gaatgattgt cagttgggag ggtgcagagt
                                                                    360
                                                                    420
gggctcctgc cctagggtgr aggtragggt ggcttaggtg asmcamcaca gaggccctgt
tcagececae gtecectece tgtgetecet cetectete ceteteetge aggegtggra
                                                                    480
ggtatcatca ttcagcagat ttcaccagag gcagtggagg aggaggtac ctgagccaga
                                                                   540
attcagaatg tcttattctc cacttgactc tgccactaac ttgttgtgca actttgggcc
                                                                    600
tttccccagg ccttcatttt cttttcttt cttttcttt yttttttt gaggcggagt
                                                                    660
ctcgctatgt tgcccaggct ggagtgcagt ggcgcagcat catctcggct cactgcaagc
                                                                    720
tocaccttct gagttcacgc cattctactg cctcagcctc ccgagtagcc gggactgcag
                                                                    780
                                                                    840
gcrcccacca ccacgcccgg cttatttttt gtatttttag tagagacagg gtttcaccac
gttagccaag atggtctcga tctcctgacc tcgtgatcca cccgcctggg cttcccaaag
                                                                    900
                                                                   960
tgctgggatt acaggcgtga gccactgcgc ccggccatt tcttaaatat ctaataaaaa
atatatagca aatgcagttt ttaaactacg acaatatgac cacgcaaaag antattatct
                                                                   1020
tccaagactg ctggtccaag gaaaagtcag taataaagtg gaagcattgt agcttatgga
                                                                   1080
atgactggtt asatttggga gaagccttag caataatcta gaatctgcat agataataca
                                                                   1140
tctgaggatt gggctttgtg gtttacaaag catttttttt tcctcttttg atcccagccg
                                                                   1200
tttgtctgga ctgatacaaa gcatttttat tagtttgtct tattcaatcc tcacaccacc
                                                                   1260
tcaaatttac agaggatatg gatctggtta atttgtatga ctatgtaacc tcatgtcagt
                                                                   1320
ccacagcact gcctggaggt gggtagaggt ggtctgggc tggaatccca gccccagtgg
                                                                   1380
gaccttgagc aagttacttt agctgtctgc acctaaattt cctcactggc aaaacaggaa
                                                                   1440
tactggtggt tcacacctgc aattccagca ctttgggagg ctgaggtggg aggattgctt
                                                                   1500
gagtccagaa gttcaaaacc agactgggca acatagcaag accatctcta caaaaattaa
                                                                   1650
ataaataaaa catttacaag ggttgtggtg aagattaaat gagatcactc acgaaaaagc
                                                                   1620
                                                                   1677
tcagcagacc ctgatgtgca gtaggtgctc aataaatgtt agccagcaaa aaaaaag
<210> 260
<211> 2648
<212> DNA
<213> Homo sapiens
<400> 260
                                                                     60
ggcacgagct tgtaggtact cattgaggtt tætgtgtaa gatgaatgaa tgttgcaaat
tcctaaacat gtgattcaga tgcccaatct tactctgtta ctttatgaaa attttttaaa
                                                                    120
gctatatgat gttatatcaa aatatgttgt tatactttag gataatcggt gtgttagccc
                                                                    180
tgaatttcag cataagtccc attttttcc atgggagtct aggaaagcta tatgtttatt
                                                                   240
cagcagcaaa atacagtttg gaacttaaat aaactattga tcaatttctg gtcttatgct
                                                                    300
agaaggaata aagcatcaag aaaaagaaaa gatttgctgt caagaccagg aaaatttgac
                                                                    360
aatagagtat tagaatgcag gaaatgaggg gaagtggaaa ggcagcaagt aggagagaaa
                                                                    420
```

```
480
aagtgcaggg acagtagaaa gtgaatdag gagctttctg acccatgcac ttcaggaacg
caattcatcc ctaaaatgct gtttgctgtc ttaggttgca agtaaccaaa ttaaaaccag
                                                                      540
                                                                      600
tttgaaagta gagtgagaca gctgtcatca taagagtcat ttgatctgtt taaaggtggc
                                                                     660
tgcttgtatg cagggaccaa cagtcatgtc cagggcagca gctggtgcac acttcaaga
cagaccataa gagctacccc aggcagcacc tgctaccaat agtgcaaaca actcagagag
                                                                      720
acctcgttgg cataagggaa tactctctcc tttctgagta aagagcaagt agaactaaag
                                                                      780
gtttcacatt ttaaacatac tttacattcc tcctcttctg gggctcaagc ctacttttgg
                                                                      840
gccaaagcgg atgttatatc tgacatagag tcctcggagc agcagttgtt cctgaaagtt
                                                                     900
cctttttgca tctttgtgcc tcatgcagtg gcttacaggt caaccagact tctcccctga
                                                                      960
cttttgatgt gtaagagctt gtgtttcaaa tgggtttggt tttcttaatg tcaccctagg
                                                                     1020
ttggtggaaa ggagagtaaa tggaaatggg gggagcaggg tcccctgggg agtttaaac
                                                                    1080
agatggaagt caattgtctc ttgagaatag aggaggctat tgagttttca ttccacactc
                                                                     1140
tgctcctgtt ctgtcagcaa agaacaagga ctactctcca gcaattgctt tccactggac
                                                                     1200
tececeace eggeteceae aaaaaectag ggateaaett agtteaetee aaattagaaa
                                                                     1260
atttaatagt catttgttc ttcttgtcca cagggagaac cattttcttt ccttcttca
                                                                    1320
aaattgccca ggtcttgtga agggttatta acaccagaaa gaaatacatt ttaataagct
                                                                     1380
taaatctcat ttctacatga aaccatcaga ttttagtact gcaatatttt gatccctctg
                                                                     1440
tettttagge tetgacacea aaattgeeat aatgaaggtg ttteaetet teteatttat
                                                                    1500
ttttatggga tcttttattc ccaaatgcct tttcatccca gccaaaggga gaaatgttga
                                                                     1560
tagatetgee atcaagaagg ttecaaaget ggeetgteag gttttetgtt teettgttta
                                                                     1620
ttatctttga acttttgttt taaatgtttt aaacacttat ttaccatgta actaaatgcc
                                                                     1680
tgatagcatt gaaagtactt tatgggtttt aatttattta atgctcatga aaccctatga
                                                                    1740
ggtaggtact gatattattt ttattttact gatgaggaaa gtgaagcaaa gagaagtgaa
                                                                     1800
atgaaaggta gtgagtgatg ggaccagggt ttggacatgg gcagtctggc tctaaaatgt
                                                                     1860
atgcttttaa ctactatgta atgctgcctc accaacaact ttctcacaa attgatattc
                                                                    1920
tggatcagag gatgtcgact ggcctgcaaa tgtattttgt atggctcata cacagttcag
                                                                     1980
aagttttaaa aatttacata gaaatctgca tttcctgact tcttttgaaa atgggaatac
                                                                     2040
                                                                     2100
caaacatcat taggcttgaa ttcccaatac ggcaacaaca gctgagcaac aagcagctgt
ttagactagg caccttccgt tcattccagc ccacaatgca gatcatagta tcgacttaaa
                                                                     2160
                                                                     2220
tttectgeet geettagaga agettetgag ettgtgaeet etattetage tgetetatga
atggacgctg ccccagtaca gcgaggacct gctgcaaaat gcatttctta gtcttcaata
                                                                     2280
cttattcctc cttgtaactg gatttctggt aagtt&gtc tcatggtgga tctgccccaa
                                                                    2340
agatggagac tgaatggcag tgagtcactc gccctggcct ccattgttct ggagaaggtt
                                                                     2400
ccagccacat ggttgatgtc agctggtttt ccagagccag agctgggttg caggacagac
                                                                     2460
acacctgcat ctaatagtga aaggcaaagt tgaaaggcca agaccagcct gaggtctgag
                                                                     2520
ggaccaaggg cttcacagag gccagaagtt cagaggtgga cataaaaggt gttaggagaa
                                                                     2580
taaggaagtg aaaagaacat agtacagtgt atcagaggag gagctccagg ctggcaaata
                                                                     2640
tcactccc
                                                                     2648
<210> 261
<211> 1084
<212> DNA
<213> Homo sapiens
<400> 261
ggcacgagcc accatgcccg gcctagatta aaaatttgaa gacatattct ctactatgag
                                                                       60
ccaatgaaat tactcatttt gtttctatcc catttgctgt cccttgcttt tggaattttg
                                                                      120
                                                                      180
tgtcttagtg tgactgtgat tctttctctc cttttgtctt tcagcaaacg gggattcagc
                                                                      240
gtccgatcct ttggaacagg gactcacgtg aagcttccag gaccagctcc cgacaagccc
aatgtttatg atttcaaaac cacatatgac cagatgtaca atgatcttct taggaaagac
                                                                      300
                                                                      360
aaagaactct atacacagaa tgggatttta catatgctgg acagaaataa gagaatcaag
ccccggccag aaagattcca gaactgcaaa gacctgtttg atctgatcct cacttgcgaa
                                                                     420
gagagagtgt atgaccaggt ggtggaagat ctgaattcca gagaacagga gacctgccag
                                                                      480
cccgtgcacg tggtcaatgt ggacatccag gacaaccacg aggaggccac cctgggggcg
                                                                      540
                                                                    600
tttctcatct gtgagctctg ccagtgtatc cagcacacgg aagacatgga gaacgagatc
                                                                      660
gacgagetge tgeaggagtt egaggagaag agtggeegea cetttetgea eacegtetge
ttctactgag cccagcgccc gcatggagcc gcctctggag cttcctgttg ttcatacttt
                                                                      720
```

```
780
ttccttcctg acatttgttt ttacttacag gtgttctgct ggtgacggta gcattaccca
                                                                     840
aataaactgt gcatatgaaa tgggagagga gatgccaaaa cgccagatga aagcaatcaa
                                                                      900
gtttcttctt ttccactttt acttatgagc gggatattga ttacaaagtt tttcttcttt
                                                                      960
aaccaaaaag gaaagacaac ggtttgtgtg cacttcccga catacctgtg tcttcgtgtg
cctgccttcc ctccctcctc cccaccgggc cggactgtac agagccctgc tgcgggtgt
                                                                   1020
                                                                     1080
taggaatgac ctggaattgt caataaacag atgctgctgt caaaaaaaaa aaaaaaaaa
aaaa
                                                                     1084
<210> 262
<211> 1217
<212> DNA
<213> Homo sapiens
<400> 262
                                                                      60
cqqcacqaqq ttqaatqtta qcctqqaqq aqatccatqt cttactcqct ctttctqqcc
                                                                      120
cttctgtctt ttgcctctgc aattcttttt gtagctggca cgatagcagg gactgggggt
                                                                      180
ctatcctttc atggtattgc tacaatattt gtccttactg gaaaatggta acatccgggt
                                                                     240
ctgatttaat tggcattaca cttacacagg gactctgagc acccccgtca ccaæccaga
cagtggacca gttttcacag ctacaaagag ctagaaatgt gtttaacatc atccagtgca
                                                                      300
tcccctaatt caaaaccatc ctcactaatc aatcatattc acccataaat attacaaatg
                                                                      360
                                                                      420
agattgattc catctcaaga caatttgtca aatacttaat tttcttcctg gatgattcta
                                                                      480
cttactggat attttagæa gagaaatgtc tgagataaaa tccctcacat ttactcaata
taacaaatta ctgtttctac tcctattctg agtagtgctt ctgaagattg tttgctgtag
                                                                      540
tgttgtcttt gataaaatga atgtcagtag tgagcctttt agagatacca tgctcagaaa
                                                                      600
tcctctttgg gatcagaaga tacctaaaat tctccccttt tgcccact& gttagatgag
                                                                     660
tqatatattc tttggatcct qcaaaqaaga gattggtttc ttttcttttc tggtggtggt
                                                                      720
                                                                      780
agtggttgta tctgtggctg tgatggttgt tgttacttgt ctctctctc ctctggctct
                                                                      840
ggcttttgct ttcctgctag tgttctttct ctttccaaac aaatagttaa attaaacgtg
                                                                      900
agcttctgaa ttgtacttgt tcatactttc aaaacataac agattaataa aaatagatgt
                                                                      960
gtcctgattt aaaacatgcc ccctggaaag gcatgctgta ttatgaaatc atgataatat
aactgcatta ttacatggca gtataaatat tagtctgttg aattcatttg tccaattgta
                                                                     1020
taactttgtg gagcagtgtt ttgacctttg atacataatt ctgagcaag tggagtggtt
                                                                    1080
gcaggcagat gagacagtgt tatatcagga tttttcaatc aactttagtt ggaggcctgg
                                                                     1140
                                                                     1200
caattacaaa catcttcaga tgtttctgta accattataa atatgaaaaa aacctcttca
                                                                     1217
aaaaaaaaa aaaaaaa
<210> 263
<211> 2072
<212> DNA
<213> Homo sapiens
<400> 263
                                                                       60
cccacgcgtc cggcgtttta cgcaggctgt ggcagcgacg cggtccccag cctgggtaaa
                                                                      120
gatggcccca tggcccccga agggcctagt cccagctgtg ctctggggcc tcagcctctt
cctcaacctc ccaggaccta tctggctcca gccctctcca cccccagt cttctccccc
                                                                     180
                                                                      240
gcctcagccc catccgtgtc atacctgccg gggactggtt gacagcttta acaagggcct
                                                                      300
ggagagaacc atccgggaca actttggagg tggaaacact gcctgggagg aagagaattt
gtccaaatac aaagacagtg agacccgcct ggtagaggtg ctggagggtg tgtgcagcaa
                                                                      360
gtcagacttc gagtgccacc gcctgctgga gctgagtgag gagctggtgg agagctggtg
                                                                      420
gtttcacaaq cagcaggagg ccccggacct cttccagtgg ctgtgctcag attccctgaa
                                                                      480
gctctgctgc cccgcaggca ccttcgggcc ctcctgcctt ccctgtcctg ggggaacaga
                                                                      540
                                                                     600
gaggccctgc ggtggctacg ggcagtgtga aggagaggg acacgagggg gcagcgggca
                                                                      660
ctgtgactgc caagccggct acgggggtga ggcctgtggc cagtgtggcc ttggctactt
                                                                      720
tgaggcagaa cgcaacgcca gccatctggt atgttcggct tgttttggcc cctgtgcccg
                                                                      780
atgctcagga cctgaggaat caaactgttt gcaatgcaag aagggctggg ccctgcatca
cctcaagtgt gtagacattg atgagtgtgg cacagaggga gccaactgtg gagctgacca
                                                                      840
attctgcgtg aacactgagg gctcctatga gtgccgagac tgtgccaagg cctgcctagg
                                                                      900
```

```
ctgcatgggg gcagggccag gtcgctgtaa gaagtgtagc cctggctatc agcaggtggg
                                                                      960
                                                                    1020
ctccaagtgt ctcgatgtgg atgagtgtga @cagaggtg tgtccgggag agaacaagca
                                                                     1080
gtgtgaaaac accgagggcg gttatcgctg catctgtgcc gagggctaca agcagatgga
                                                                     1140
aggcatctgt gtgaaggagc agatcccaga gtcagcaggc ttcttctcag agatgacaga
agacgagttg gtggtgctgc agcagatgtt ctttggcatc atcatctgtg cactggccac
                                                                   1200
gctggctgct aagggcgact tggtgttcac cgccatcttc attggggctg tggcggccat
                                                                     1260
                                                                     1320
gactggctac tggttgtcag agcgcagtga ccgtgtgctg gagggcttca tcaagggcag
                                                                     1380
ataatcgcgg ccaccacctg taggacctcc tcccacccac gctgccccca gagcttgggc
tgccctcctg ctggacactc aggacæctt ggtttatttt tgagagtggg gtaagcaccc
                                                                    1440
ctacctgcct tacagagcag cccaggtacc caggcccggg cagacaaggc ccctggggta
                                                                     1500
aaaagtagcc ctgaaggtgg ataccatgag ctcttcacct ggcggggact ggcaggcttc
                                                                     1560
acaatgtgtg aatttcaaaa gtttttcctt aatggtggct gctagagctt tggcccbgc
                                                                   1620
ttaggattag gtggtcctca caggggtggg gccatcacag ctccctcctg ccagctgcat
                                                                     1680
                                                                     1740
gctgccagtt cctgttctgt gttcaccaca tccccacacc ccattgccac ttatttattc
                                                                     1800
atctcaggaa ataaagaaag gtcttggaaa gttaaaaggc atcagtctta ctacctgtcc
caccacccc accttaggga aatgtcctag aatcctggga aattgagggc ttctttgatg
                                                                    1860
                                                                     1920
gtgagtggag aaaagataga ggagaaggtt gcccctgaag tgctgttagg agaaggagga
                                                                     1980
tagaggaatc agccttagga gggttccatg ccagctgtca tttggcaaag gaccctggac
agatgacttt tgcctctgaa cttcactctt ctctttcctc aaatgggctt ætaatgctt
                                                                    2040
tccactcagg cttaacatga gaattaaatg ag
                                                                     2072
<210> 264
<211> 2543
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2538)..(2538)
<223> n equals a,t,g, or c
<400> 264
ctccgttgga aacttgggct gagtaccgcg gcggggcgca gcraggcgcc ctagacatct
                                                                       60
tctccctccc ttgcctcaga tttattgcta aacatgggtg catttttgga taaacccaaa
                                                                      120
                                                                      180
actgaaaaac ataatgctca tggtgctggg aatggtttac gttatggcct gagcagcatg
caaggatgga gagtggaaat ggaagatgca cacacagctg ttgtagtat tcctcacggc
                                                                     240
ttggaagact ggtcattttt tgcagtttat gatggtcatg ctggatcccg agtggcaaat
                                                                      300
tactgctcaa cacatttatt agaacacatc actactaacg aagactttag ggcagctgga
                                                                      360
aaatcaggat ctgctcttga gctttcagtg gaaaatgtta agaatggtat cagaactgga
                                                                      420
tttttgaaaa ttgatgaata catgcgtaac ttttcagacc tcagaaacgg gatggacagg
                                                                      480
                                                                      540
agtggttcaa ctgcagtggg agttatgatt tcacctaagc atatctactt tatcaactgt
                                                                      600
ggtgattcac gtgctgttct gtataggaat ggacaagtct gcttttctac ccaggatcac
aaaccttgca atccaaggga aaaggagcga atccaaaatgcaggaggcag cgtgatgata
                                                                     660
                                                                      720
caacgtgtta atggttcatt agcagtatct cgtgctctgg gggactatga ttacaagtgt
                                                                      780
gttgatggca agggcccaac agaacaactt gtttctccag agcctgaggt ttatgraatt
ttaagagcag aagaggatga atttatcatc ttggcttgtg atgggatctg ggatgttatg
                                                                      840
agtaatgagg agctctgtga atatgttaaa tctaggcttg aggtatctga tgacctggaa
                                                                      900
                                                                      960
aatgtgtgca attgggtagt ggacacttgt ttacacaagg gaagtcgaga taacatgagt
                                                                     1020
attgtactag tttgcttttc aaatgctccc aaggtctcag atgaagcggt gaaaaaagat
tcagagttgg ataagcactt ggaatcacgg gttgægaga ttatggagaa gtctggcgag
                                                                    1080
gaaggaatgc ctgatcttgc ccatgtcatg cgcatcttgt ctgcagaaaa tatcccaaat
                                                                     1140
ttgcctcctg ggggaggtct tgctggcaas cgtaatgtta ttgaagctgt ttatagtaga
                                                                     1200
ctgaatccac atagagaaag tgatgggggt gctggagatc tagaagaccc atggtagcct
                                                                     1260
taaaaaacctt ctaaaatgct tttrattctg aaaattgggg gaaaaaactt ttaatcacaa
                                                                     1320
                                                                     1380
ttttcttcaa tacaagggga aaatattctt gcggattccc aacgttttgt gatatgagca
                                                                     1440
gaaaatcatt agcatttccc atcatttgtt catatttgtg ttttctgaca gttgccactt
gtagcattgc ctgtactaca gtattttttgccaacctcag gcatactcgt tacatctgta
                                                                    1500
```

```
1560
ttqaactttc gqccctagaa accagtggag ttatttcacc acaaatcaac aatgtgcctg
                                                                     1620
aggtgcatgg gaaatatagt tagctatact ctgaaaatac attatgtttt ttttctttaa
acaaaacaca caacatgtaa gcatgtaaga gtaaagaatt gtatgatatg ttcctttttt 1680
                                                                     1740
cagttcacca agttggaagc cttttgcagc tctgtggctt ggaatttcat ttgagcaatt
tctataggat atgtatttat tattgattgt tatttaawww wwttccamtt ttacctgtat
                                                                     1800
taccaaactg ggttctccaa taatgtccaa attgtaatgt tgccttgctt caagataaag
                                                                     1860
tqtatttggg aataatatta taaæccttm caaattttat gcatgtatct actgcatcct
                                                                    1920
tcaactctca ctagaaaatc ttttgaaacc aaatggatta atttatggct atttataatt
                                                                     1980
tgctttgaca tctcactgtt ggaaattttt taaagatgag atttgccttt ataatgtaaa
                                                                     2040
                                                                   2100
ttgtgatttt tgttttacat gtgggtttct atagttttaa ttttttcagc ttttagata
cgagttttgt gtaatttggt atttttaatc atttatgtta ttttaaaagc tcagaatatc
                                                                     2160
acattgaaat tactataaat acatttaaaa ttatctattt tagatctaag gaaatactac
                                                                     2220
agagatattt tcatgggttc agtaactttt cattttataa cattgggcac ggtacagagt
                                                                     2280
qattqtcaca taaqqtactt qaaqatttat taqtttaatt ctatttttac aqtaaccttg
                                                                    2340
aattottotq aqttttgcat gtattaaatt caattaatgo tgaacatgaa gagtaaagta
                                                                     2400
                                                                     2460
tttatctgaa agaagtttct gggttaggag aagtaatgaa tgtatccatt tgtacatggt
                                                                    2520
ttacatgttg tggatgcttt gtaaacattt tcctgtatgt ttaaattgtgtttcagcagg
                                                                     2543
atgtagttgc ccttgtgnag gtt
<210> 265
<211> 559
<212> DNA
<213> Homo sapiens
<400> 265
gatteggeae gagetgaage eetgggtgee aetgetggee eageagggag gaggttgetg
                                                                       60
ctgctcgggc tgaagtgagg tgtgggtctg gctgggcctc cagtttccca cctgggcctt
                                                                     120
                                                                      180
gattgtgagg aaggcctggc ctggctgcag aagcccagaa gcacctgagt aggagagttc
                                                                      240
ctttgtccca cctgcagctc attcaagcct gtgcatgggg gttggggtcc tcaggatctt
                                                                     300
gctttcctgt ttaggggagg cagccccaaa gagtgctggg accagtttggagagtgctaa
ggaatgctgg tctgcagcga ccctacttgt gctctgcgtc ctctgccaac tgcagcatgg
                                                                      360
                                                                      420
gtgaacatct gtacatctgt ccccataatg aaaatggcct cagcaaataa caaaaatatt
accatttagc aatcaggcac ttattaaaag cctggcccaa taaacttaaa aaaaaaaaa
                                                                      480
                                                                      540
aaaaactcga ggggggccc ggtacccaat tcgccctata gtgagtcgta ttacgcgsgs
                                                                      559
tcamtggccg tcgtttaca
<210> 266
<211> 1676
<212> DNA
<213> Homo sapiens
<400> 266
ggcacgaggg gacttcagaa ccacagaact gagatgataa atgagtggg tttcaagttg
                                                                      60
                                                                      120
ctaagtttgt ggtcatttgc ttacagtaat tgtaaactaa tacacaagtg taagtttgtt
                                                                      180
ttcttaaaga agaaaaaaac ggggaaggag gtaagtgtta aaggatcaaa actctgacaa
                                                                      240
aaggctggtt gcagaacatg acaggttgtt gcactggaaa ctatttgtca tgcaagttta
                                                                      300
tgttaaaata agtagctttt gaggactttc atttttggtc ttgtaaacat gccatttaat
                                                                      360
attgtccmac tgataatact ttttgcaaac agaaactgtt aaaaccttta aagcaaatat
tactgtagag aagaagtaat gtgttatgaa actgtgagga tactaagaag gatcctactt
                                                                      420
                                                                     480
aagtttcttc agcataaata aacttgagcg tttcgaccac tgtactgag aatgaaatta
tttcttaatc acttttaatq aqqtaaaatt tacatacqat aaaatqcacc aattttaaaq
                                                                      540
                                                                      600
tatagtttaa tgagcttgca cagatgtaaa tatctgttta acttctactt aatcaagata
tagaatattt ccacaatgcc aaaattgcca ttgaccccct tccccttctt tcacccaact
                                                                      660
                                                                      720
gcagacccca ggtcaccacc aacctactct tgctcaatat agatttaatg tgatgtct
tttctagagt tttatgtcaa tagaattgta cactatgcac tcttccatgc ctggctttct
                                                                      780
ttgctcagca graggtgttt agattaattc agtagttcat ttctttctag taatgaatag
                                                                      840
gatcacatta tacattatac cacagagtgt gcatccata ctttgtkgat tgatatttgg
                                                                     900
```

```
960
qtcatttcca ggttttggct attgtgaata aaactgcctt gactattcct gwacaagtct
                                                                  1020
ttgtattaag gaacatacgt tttattttct cttgaggaag ttcctagcaa taagattgct
                                                                  1080
qqqtcatatg gtaggtatat atttagcttt aaaagcaact aagtgctttc caaagtgact
                                                                  1140
qtacaattta acattcctac ctgaaatgta agagaattcc agttgctcca cattcttgtc
                                                                  1200
aacccttggt agcatcagtc tctttaagaa ttctaatgga tatgtaatat ggactatagg
                                                                  1260
tttaatttgc atttctctgt tgactaatga tgttgcacaa cttttcatat gtctatcaac
                                                                 1320
cattcttgca tcttcttta tgaaatgtct gtcaaatca tttgtccact ttttattgtg
                                                                  1380
tcattttatt cagttgtaag agttctttac atattctgga aacaagtcct ctgtcacata
tataggtact ttgaaaatct gtgctttgcc tttacatttt tttaatggta actttttaag
                                                                  1440
                                                                  0 O.E
agtagatagt tttggttttg atgaaattca acttatcagt ttttcagtta tagtatgtat
                                                                  1560
ttttatgacc catctaagaa gcatctgtct acccagagtt gcaaagatat cccttttctt
actagaaata ttatagtttt atttaccatt gcttctatga tacattttaa gttaattttt
                                                                  1620
                                                                  1676
<210> 267
<211> 1747
<212> DNA
<213> Homo sapiens
<400> 267
ccacqcqtcc ggctacctgt gcatcgtgct gctcatgctg ctgctgctca tcttctggat
                                                                    60
cgcgccggcc catgggccca ccaacatcat ggtctacatc agcatctgct ccttgctggg
                                                                   120
                                                                  180
cagtttcacc gtgccttcca ccaagggcat cgggctggcg gcccaagaca tcttgcataa
                                                                   240
caacccgtcc agtcagagag ccctctgcct gtgcctggta ctcctggccg tgctcggctg
cagcatcatc gtccagttca ggtacatcaa caaggcgctg gagtgcttcg actcctcggt
                                                                   300
                                                                   360
gttcggggcc atctactacg tcgtgtttac cacgctggtc ctgctggcct cagccatcct
                                                                   420
cttccgggag tggagcaacg tgggccggt ggacttcttg gggatggcct gtggattcac
                                                                    480
gaccgtctcc gtggggattg tccttataca ggtgttcaaa gagttcaatt tcaaccttgg
qqaqatqaac aaatctaata tgaaaacaga ctagattgca ataggagctt ggatggttcg
                                                                    540
                                                                  600
aggaataggc attggaggtg gtttctggcc gtgattggat gtgaagtaga agaggtctc
                                                                    660
gatcatggtg ttagaattga ctggatagta acaggtggtc tggtggatag cggggagcat
ggctcagcac cagagcagag gcccagcagc ctctgcagcc caaacgtccc aacggtgcct
                                                                   720
ggaccatctc ttctgatgag acgaatctca ttttcatttc cattaacctg gaagctttca
                                                                   780
tgaatatttc ttctttaaaa cattttaaca ttatttaaac agaaaaagat gggctctttc
                                                                   840
tgggtaggtg gtacatgata gcagagatat ttttacttag attactttgg gaatgagaga
                                                                    900
                                                                    960
ttgtgtcttg aactctgcac tgtacaggat gtgtctgtag ttgtgttagt ttgcattaag
                                                                 1020
catgtataca ttcaagtatg tcatccaaat aagaggcata tcattgaatt ttttaatc
                                                                  1080
ctctgacaag ttgactcttc gacccccacc cccacccaag acattttaat agtaaataga
gagagagaga agagttaatg aacatgaggt agtgttccac tggcaggatg acttttcaat
                                                                   1140
ageteaaate aattteagtg cetttateae ttgaattatt aacttaattt gaetettaat
                                                                   1200
gtgtatatgt tcttægatta gaataatgca acttcgagta tgctttaata tttcaatatt
                                                                  1260
                                                                   1320
caagttacaa atgtataagg cagttagaaa taatacagtc acatgtcact taatgatagg
gaaacattct gagaaatgca ttgtaaggtg actttattgt gtgaacatca tggagtgcac
                                                                   1380
ttatacaaac ctagatggga cacctatgac ccacccaggc cagatgtac agcctgttgc
                                                                  1440
                                                                   1500
tcctgggcca cacacctgta cagcatgtga ctgcactgaa taccgcaggc aattgtaaca
                                                                   1560
cagtggtgag tatttgtgtt tacaaacata ggaaaggtac agtaaaacta tggtattaca
                                                                   1620
atgttatggg accaccgtca tgtaagtggt atgtctttga cagaaacatg gttacgtggt
                                                                  1680
tcatgactgt atattcactg gaagatagtc aagactaaag acacattaga gcaaattgac
                                                                   1740
1747
aaaaaaa
<210> 268
<211> 1251
<212> DNA
<213> Homo sapiens
```

<400> 268

```
gacccacgcg tccgagcaaa cccaggaagg tgtggcgtcc ccgcttcgcg ccaagatggt
                                                                       60
                                                                      120
gctggtgctg cgccatcctt tgtgtgcccg ggaaagggcg ttccgggagc cgggtcgggg
                                                                      180
gctcctgact cgcactgggc agcatgacgg tgcgccggct gtcactgctg tgccgggacc
tetgggeget gtggetgetg etgaaggeeg gegeagtaeg tggggegegg geaggteete
                                                                      240
gcctccccgg aaggtgttgt ggggcgacat gcggggacgc cgggcggggg tggacgttct
                                                                      300
                                                                      360
gggcccagcc ctgtcctcag aggctgctgg ggcagaagcc cggggctggg ggatgccggg
gatgggtgtt ggggtgggtg cctccgagac cagaggagccctgttccttg gcagggaagg
                                                                     420
tgtgcacggg ccttgcccga tggatggttt agggccatgg ccctggggtc cctggtgagc
                                                                      480
agtggggccg cctctgccct tggcctgtga gggactgtct gtgctggtcc cagaaggctg
                                                                      540
                                                                      600
ggatcacctt tccactggct cctttgttcg aggtttttca tagacaggct atgtggacaa
                                                                      660
atgagggcag cgcccacgtc tggctggtgg aggggctgcg gctcctcctt ggaggggacg
cctggccact gctgtcccca caatggggcc acccgtggtg caaggcgtga caagctgccc
                                                                      720
tctctaggta agcaggactt gggaggcccc tggccaagcc tgtggacccg gctgggcggc
                                                                      780
                                                                      840
ctctgtggtc tcaggtttgg gtgtgtttgg tctggtcagg gctcaggggc tgctggtcca
                                                                      900
cactggcccc atcctgacaa ttggagcttt ggggcaaggt ccctggagaa ggggtcacgt
                                                                      960
cgggaggaaa cagcctgggt tttgttgatg cttttctaag aatggagtac tcgttttcaa
gagatttgtc ctaattatat tttccagcgg gtacttatgc caagtattga tgaataattc
                                                                     1 \, \Omega
                                                                     1080
ataaaataag catctttgtg aattttagtg aatcagacct taactatcaa cggcaatgaa
tgaacatcta aagtttccaa ttttaaagta aagaactggc tgggtacagc agttcacgcc
                                                                     1140
tgtaatccca gcactttggg aggccaaggc tagaggatcg cttgagccca ggagtttgag
                                                                     1200
                                                                     1251
atcagcctgg gcaacatacc aagacctc& ctgttaaaaa aaaaaaaaaa a
<210> 269
<211> 1539
<212> DNA
<213> Homo sapiens
<400> 269
cgatggcccc gcggccgctc tagaaagtcc cgtttttttt ttttttttt ttttttttt
                                                                       60
ttttagagta cgttctgcat tttatttytg caggcaacac tttgctcacc agcaagaaca
                                                                      210
                                                                      180
cageceragg aagggaceca ataacettte aaaacscaaa etgetkeetg eggtgaggge
                                                                      240
ccagggtcct ccacggagag gacaggcatc ttcctttccc accaggaagg agtcagcccg
gagectetge tatgtgeaag geggtgtgea ageaeegget gergetyttt getgtetett
                                                                      300
ctttctcttt ggggctgggc tgggtgtgcg ttctggtgct gatgctttgg cctgtgaggc
                                                                      360
tgagettgge acctegacce gttcaattac agcaacgaag aagccactge tgagtgtggt
                                                                      420
ctcaggggag gcccggaggc agtgctcggc acccgggaac gtgctcaggc ctcggtgggg
                                                                      480
\verb|ccaggcaggc|| agggcgggag|| ctagcctgaa|| ggcgcccggg|| ttctgctgca|| gcgcatctg
                                                                     540
caccacgtct tcattctcct cctggcagag ggagcacgtg gagtagacga gccgctgcag
                                                                      600
ggaagggaaa gtgagcgcgt ggcacagggc tcgctgctgg aaccctgcca gggcatgcag
                                                                      660
acgcaccggg ctaggtgtgc ctgccccggg ctcctccagc tgtctgctcg gcatacccga
                                                                      720
gccactgcag gaaggatcca gcaggayrta gtggacctca ygrtagcqyg gatcyraggg
                                                                      780
                                                                      840
ggagaccgcc aggaagtcct cctcagccag ytcacagcar gagacgccag cccrggccag
                                                                      900
cagcgtggcc atggatgcca gccgcttggc atccaggtca aaggcaaaga tcttcccttg
                                                                     960
gttcttcaga agagcagcca agtgactggt cttattgcct ggggcggcac aggatcgat
gacatgggag cctggcgggg ggtccagcag catggctggg agacagctgg ccctgtcctg
                                                                     1020
cagaatgagg tgtccggccc ggtacagtgg gtgttcatgc agatctgtct gggcgggaaa
                                                                     1080
                                                                     1140
caccagcage teeggeatea aggggteeag gagaaaatge tteecettga gggetegtaa
gtcatcgagg ctggaagccc gaccctgata ggagaaacct tgtctcttga aataatcaac
                                                                     1200
tacatcatcg gagcaggtct tgagagtgtt cacacgcaca aatcgaggca gctgggaggc
                                                                     1260
                                                                     1320
tggaccagge ctggatecea ettecaacag gteeteatte eggeteacae eecgatgaae
cttgagccga gccaactcag ccttgagcct cgcctggtgc cggcccaaa gagccttcca
                                                                    1380
teggeeeca eccetegaa ageeetttee caacaacaac teatacacta geaeettgge
                                                                     1440
caggtgcggc cgctctagag gatccctcga ggggcccaag cttacgcgtg catgcgacgt
                                                                     1500
catagetete tecetagagt gagtegaatg aggtteata
                                                                     1539
```

<212> DNA

660

atagcgaaac cctgcctcag ttttaaaaaa gaaaaaaaga agtagtgaag aaattggaaa

```
720
ggattctgag aagaaatatg caaggtggaa aagagcctag aaagaaaggtgacagatgct
                                                                   780
gggatttggt cgtcagaaga gatatctagg aaatagcatg gcagccctca agtactagct
                                                                   805
ccacttaaaa aaaaaaaaaa aaaaa
<210> 272
<211> 2108
<212> DNA
<213> Homo sapiens
<400> 272
                                                                   60
ggcacgaggg agacctaaæ acagtcacca tgaagctggg ctgtgtcctc atggcctggg
ccctctacct ttcccttggt gtgctctggg tggcccagat gctactggct gccagttttg
                                                                   120
agacgctgca gtgtgaggga cctgtctgca ctgaggagag cagctgccac acggaggatg
                                                                   180
                                                                  240
acttgactga tgcaagggaa gctggcttcc aggtcaaggc ctacactttcagtgaaccct
tocacctgat tgtttcctat gactggctga tcctccaagg tccagccaag ccagtttttg
                                                                   300
                                                                   360
aaggggacct gctggttctg cgctgccagg cctggcaaga ctggccactg actcaggtga
cettetaceg agatggetea getetgggte eeceegggee taacagggaa ttetecatea
                                                                   420
                                                                   480
ccgtggtaca aaæggcagac agcgggcact accactgcag tggcatcttc cagagccctg
gtcctgggat cccagaaaca gcatctgttg tggctatcac agtccaagaa ctgtttccag
                                                                   540
                                                                   600
cgccaattct cagagctgta ccctcagctg aaccccaagc aggaggcccc atgaccctga
                                                                  660
gttgtcagac aaagttgccc ctgcagaggt cagctgcccg cctctcttc tccttctaca
aggatggaag gatagtgcaa agcagggggc tctcctcaga attccagatc cccacagctt
                                                                   720
cagaagatca ctccgggtca tactggtgtg aggcagccac tgaggacaac caagtttgga
                                                                   780
                                                                   840
aacagagccc ccagctagag atcagagtgc agggtgcttc cagctctgct gcacctccca
                                                                   900
cattgaatcc agctcctcag aaatcagctg ctccaggaac tgctcctgag gaggcccctg
ggectetgee teegecacea acceeatett etgaggatee aggettttet teteetetgg
                                                                   960
                                                                  1020
ggatgccaga tcctcatctg tatcaccaga tgggccttct tctcaaacac atgcaggatg
                                                                 1080
tgagagtcct cctcggtcac ctgctcatgg agttgaggg attatctggc caccggaagc
                                                                  1140
ctgggaccac aaaggctact gctgaataga agtaaacagt tcatccatga tctcacttaa
ccaccccaat aaatctgatt ctttattttc tcttcctgtc ctgcacatat gcataagtac
                                                                  1200
                                                                  1260
tatataaagt gagaattaga gtttagctat aattgtgtat tctctcttaa cacaacagaa
                                                                  1320
ttctgctgtc tagatcagga atttctatct gttatatcga ccagaatgtt gtgatttaaa
                                                                  1.380
gagaactaat ggaagtggat tgaatacagc agtctcaact gggggcaatt ttgcccccca
                                                                  1440
gaggacattg ggcaatgttt ggagacattt tggcattat acttgggggg ttgggggatg
                                                                 1500
gtgggatgtg tgtgctactg gcatccagta aatagaagcc aggggtgccg ctaaacatcc
                                                                  1560
tataatgcac agggcagtac cccacaacga aaaataatct ggcccaaaat gtcagttgta
                                                                  1620
ctgagtttga gaaaccccag cctaatgaaa ccctaggtgt tgggctctgg aatgggactt
                                                                  1860
tgtcccttct aattattatc tctttccagc ctcattcagc tattcttact gacațaccag
                                                                  1740
tetttagetg gtgetatggt etgttettta gttetagttt gtateceete aaaageeatt
                                                                  1800
                                                                  1860
atgttgaaat cctaatcccc aaggtgatgg cattaagaag tgggcctttg ggaagtgatt
                                                                 1920
agatcaggag tgcagagccc tcatgatag gattagtgcc cttatttaaa aaggccccag
agagctaact caccetteca ccatatgagg acgtggcaag aagatgacat gtatgagaac
                                                                  1980
                                                                  2040
caaaaaacag ctgtcgccaa acaccgactc tgtcgttgcc ttgatcttga acttccagcc
2100
aaaaaaa
                                                                  2108
<210> 273
<211> 1182
<212> DNA
<213> Homo sapiens
<400> 273
ggcacgagcc cccagcacat ggaagccctg ttacagtccc tcgtgatagt cttgcttggg
                                                                    60
                                                                  120
ttcaaatcct tcttaagtga agagctggc tctgaggttt tgaacctact gacaaataaa
cagtatgagt tgctttcaaa gaaccttcgc aagaccagag agttgtttgt tcatggctta
                                                                   180
                                                                   240
cctggatcag ggaagactat cttggctctt aggatcatgg agaagatcag gaatgtgttt
```

```
cactgtgaac cggctaacat tctctacatc tgtgaaaacc agcccctgaa gaagttgtgg
                                                                  300
                                                                   360
agtttcagca agaaaaacat ctgccagcca gtgacccgga aaaccttcat gaaaaacaac
                                                                   420
tttgaacaca tccagcacat tatcattgat gacgctcaga atttccgtac tgaagatggg
gactggtatg ggaaagcaaa gttcatcact cagacagcaa gggatggccc aggagttctc
                                                                   480
                                                                   540
tggatctttc tggactactt tcagacctat cacttgagtt gcagtgcctc cccctccct
                                                                   600
cagaccagta tccaagagaa gagatcaaca gagtggtccg caatgcaggt ccaatagcta
                                                                   660
attacctcaa caagtaatgc agaagcccga caaaatcctc cacctaacct cccccctggg
                                                                  720
tccctggtga tgctctatga acctaaatgg gctcaaggtg tcccaggcaa ctagagatt
attgaagact tgaacttgga ggagatactg atctatgtag cgaataaatg ccgttttctc
                                                                   780
                                                                   840
900
gaaaaatata aagacaggct tctaacagca atgaggaaga gaaaactgtc tcagctccat
gaggagtctg atctgttact acagatcggt gatgcgtcgg atgttctaac cgatcacatt
                                                                   960
gtgttggaca gtgtctgtcg attttcaggc ctggaaagaa atatcgtgtt tggaatcaat
                                                                  1020
ccaggagtag ccccaccggc tggggcctac aatcttctgc tctgtttggc ttctagggca
                                                                  1080
aaaagacatc tgtatattct gaaggcttct gtgtgacagg aaacccagc ctaagaaaca
                                                                 1140
                                                                  1182
<210> 274
<211> 1146
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)..(5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (857)..(857)
<223> n equals a,t,q, or c
<400> 274
tccancatta tgggatacat tgatgatcca gacaaatatc atcagggttt tgaattgttg
                                                                     60
                                                                    120
ctgtcagcct tgggtgatcc ctcagaaaga gtagttagtg ctacacatca agtatttta
ccagcttacg ctgcgtggac tacagaactt ggaaatttac agttcatct tatacttaca
                                                                   180
                                                                    240
ctactgaaca agattgaaaa acttctcagg gaaggagaac atggactgga tgaacacaaa
                                                                    300
ctccacatgt atctttctgc cttgcagtcc ttgatcccat ctctctttgc attagtgcta
                                                                    360
cagaatgcac ctttctccag caaagccaag cttcatggtg aagtgccaca gatagaagtg
                                                                    420
actaggtttc ctcggcctat gtcgcctctt caagatgtgt ccactattat cggaagtcgt
gagcaattgg cagtgctgct gcaactttat gactaccagc tagaacaaga gggtacaaca
                                                                    480
ggctgggaga gtttactgtg ggttgtcaat caattgttgc cacaacttat agaaatagtt
                                                                    540
ggcaaaatta atgttacttc aactgcctgt gtccatgaæ tctccagatt tttctggcgc
                                                                   600
ctttgccgga catttggcaa aatttttaca aacactaagg taaaacctca gttccaggag
                                                                    660
attttaagac tatctgaaga aaacattgat tcctcagcag gaaatggggt cctcactaaa
                                                                    720
                                                                    780
gctacagtcc ccatttatgc aacaggagtc cttacgtgtt atattcagga agaagaccga
aaactgttag ttggattctt agaagatgta atgacgctgc tttcattatc tcatgctcct
                                                                    840
                                                                    900
cttgatagcc tgaaggnttc ttttgtggaa ttgggtgcaa accaggccta ccatgagtta
                                                                    960
ctattaactg ttttgkggta tggkgtkgkc catacttcag cactcgtgag gtgtactgct
                                                                  1020
gctagaatgt ttgagctgtt ggtgaagggg gt@atgaaa ctctggtagc tcagagggtt
gttcctgctc tcattactct ctccagtgac cctgaaatct ctgtcaggat tgccacaatt
                                                                   1080
ccagcctttg gsactattat ggaaacagta attcaaagag agttgctgga aagagtgaaa
                                                                   1140
                                                                   1416
atgcag
<210> 275
<211> 1998
```

<212> DNA

<223> n equals a,t,g, or c

```
<400> 275
                                                                     60
ggcacqaqaa caatttccct tgtacataat atacttatgt acttatacca ttgactctgt
aagataaaag tottagaaat ggggttgcca agtcaaaggg totatgcatt taacacaggg
                                                                    120
aatgagtact gtcacgtggc ttctgaaact gttacccag tttatgttcc caccaacagt
                                                                    180
gtclaattcc catacctgtg ctaggtatta tgtctttaat ttttgtctga ttattcatt
                                                                    240
taattttaat ttccattatc actggtgagg ttgggcttct gttcagtttt tttgtcattt
                                                                    300
atgtttcttt tgtgaattgc cttttcctat gctttgtgca tttttctctt ggggtttgtc
                                                                   360
                                                                    420
tttttaaaat tgatatacag gtgttctcta taatatagat attctgccac tatatgcaaa
                                                                    480
tgatcttcca atttatttat ttatttgaaa cagagtttca ctcttgtcac caggttggag
tgcagaggtg cgatcttggc tcactgcaac ctccacctcc caagttcaag cgattttcct
                                                                    540
qcctcaqcct ccctaqtaac tgggattaca ggtgccctgc caccatgccc ggctaatttt
                                                                    600
tgtatttttg gtagagacgg ggttttgcca tgttggccag gctggcctcg aactcctgac
                                                                    660
                                                                    720
ttcaggtgat ctgcccacct cagcctccca aagtgctggg attacaggcc tgagctaccg
                                                                   780
caccggcccc aatttatttc ttttaactta gtttatggtg cctttagctg tacaaaabt
actaattttt agtcaaatat ccagcttttc ctttagggct tcttatatgt cctgatccaa
                                                                    840
ggattatttt ttaaaaattc ttccgtattt tctcctataa tattcatagg ttactttaca
                                                                    900
attaqatttt taatacatct cctaactttt tcatatagta tgaggtatcc atttttaaaa
                                                                    960
aatqqatatc caqttqtqcc catatqtctt ttccactcat ctgaaatqcc accattatca
                                                                   1020
tattttcaat tttcatgtgc acgtgggtct gttttcaaac ttggagattc tcttccactg
                                                                   1080
atatatgtct attcttgtgc cagtggttta actgctattg ctttatagta tattttgata
                                                                   1140
tcttcttttc aaaaggatac tcttgtgtat tctttttttc atcttgtgta tctcatcca
                                                                  1200
ttttccaqaa aaccacaqaa tcaactttaa gtttcatttc attaagtcag attagtgaga
                                                                   1260
qctqattttc tgtgtatcat gttcattcag aaacatagtc tatctctcca tttaggggca
                                                                   1320
                                                                   1380
cttgttttat attttctttc taacacgtat tttgttgggt ttattgtacc ttttttttt
                                                                   1440
ttaacttcag attcaggggg gtgcacgtgc aggtttgtta cctgagtata cgatatgata
                                                                   1500
ctgaggttgg agtatgaatg atgccattac ccaggtactg ggcataatac ccaatagtta
qtttttcaac ccttgccctt ctccctctct cctccctcta gtagtcccca gtttctaata
                                                                   1560
ctgccatctc catgttcatg agaacccagt gtttagctcc cacttaaag tgagagcatg
                                                                  1620
ttgcatttgg ttttctgttc ctgccatatc ctttgtaggg acatggatga aattggaaaa
                                                                   1680
catcattctc agtaaactat cgcaagaaca aaaaaccaaa caccacatat tctcactcat
                                                                   1740
aggtgggaat tgacaatggg aacacatgga cacaggaagg ggaacatcac actctgggga
                                                                   1800
ctgttgtggg gttggcggag gggggaggga tagcattggg agatatacct aatgctagat
                                                                   1860
gacgagttag tgggtgcagt gcagcagcat ggcacatgta tacatatgta actaacctgc
                                                                   1920
                                                                   1980
1998
ttaaaaaaaa aaaaaaaa
<210> 276
<211> 777
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (274)..(274)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (278)..(278)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (295)..(295)
```

```
<220>
<221> misc feature
<222> (676)..(676)
<223> n equals a,t,g, or c
<400> 276
                                                                     60
ggcagagctc aggtaagarg caaaattact agaatattca ctctcactga aaatgagtaa
aaacctaact tagatgaaaa toottatott gttoattttt attootggoo ttttggttga
                                                                   120
gaagaatggg ccagaccatg tgtgtgtgtg tatgtgtgtg cgtgtgtgtg tgtgtgcgca
                                                                    180
cttgggttta tttatatgag ccggtaaaat ttcgttcacc attaatttat gttaatttac
                                                                    240
caacttctta aatgagaaca gtgagaattt tctncatngt taataataca ctggncagtg
                                                                  300
catatatgca tcacgaagag aggattttcc cattgataat agatttccaa atacatcttc
                                                                    360
                                                                    420
ctgctttaag attttaatat atggatttat atataaaaac tagttaagtc attggaaaag
caaactgtca wccttctctt atttgagawc tcaactttag aaagtctatg ttctcaacta
                                                                    480
cagaaaataa tttttagacc agctæcttt cagatttctg cagtgcttat tttctcccag
                                                                   540
                                                                    600
660
atacggccag gcgcgatagc tcatgccttt aatcccagca ttttgggagg ccgaggaggg
cagatcacct gaggtncagg agttcgagac cagcctggct aacatggtga aaccoattt
                                                                   720
ctactaaaaa aaaaaaaaa aaacttcgag ggggggtccc ggtacctaat cgtccct
                                                                    777
<210> 277
<211> 600
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (553)..(553).
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (560)..(560)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (589)..(589)
<223> n equals a,t,g, or c
<400> 277
gaattcggca cgagcggcac gagccgagat cgttctgggg ctgctggtat ggacgcttat
                                                                     60
                                                                   120
tgctggaact gagtacttcc gggtccccgc atttggctgg gtcatgttg tagctgtatt
                                                                    180
ttactgggtc ctcaccgtst tcttcctcat tatctacata acaatgacct acaccaggat
tccccaggtg ccctggacaa cagtgggcct gtgctttaac ggcagtgcct tcgtcttgta
                                                                    240
cctctctgcc gctgttgtag atgcatcttc cgtctcccct gagaaggaca gtcacaactt
                                                                    300
caacagctgg gcggcctcat cgttctttgc cttcctggtc accatctgct acgctggaaa
                                                                    360
                                                                     420
tacatatttc agttttawag catggagawc caggaccata cagtgattta ccattttgat
aattaaaagg aaaaaaaag gaagactctc actgtaaaaa cagctgtagg tataatgtat
                                                                     480
                                                                    540
attcccagag aattgtattt aactaattaa tgttttttat atcttaaat ttgctcacaa
                                                                     600
attgtggttt gtnacaattn aactgggtta ctttatttgg caagtgttnt aggcttttaa
<210> 278
<211> 970
<212> DNA
<213> Homo sapiens
```

```
<400> 278
                                                                     60
ctcgtgccga attcggcacg aggtgcccag gctctcaggg cagagggtcc agtgtgatca
                                                                    120
ctttgcatgg ctctctccc ctcctgagct tgtgccaggg ccccagggct gacctggaga
ggaaaawggc agagggtgaa gatggggtgt ctggtttggg gaccatcctg gcccccttg
                                                                    180
                                                                    240
tcactgttgg catctcttct gcacagtggc attgctggga ggtgcttact gtgcctattc
aaggggctgg cagccgcagc ctcactgcag atcagggact tgcttcccg gttgaccaca
                                                                   300
                                                                    360
ggtccaagaa cctgcagggt ccagcctccc ccccatcccc agtcttcccc accctggccc
ggccctccag gtgcagaaac atgcaggccc ctctccagga ctgtgggagg agtgtgtccc
                                                                    420
                                                                    480
tcagactggc ctgtgtcctg gctcctctta ccacctcttc cagaggttgt cacctgcagc
tgccccagga taaaggcaag gccagagagg actcctgaac tcctgtgtgc ctggggtggc
                                                                    540
aggggcaaac atagccaact ggtggcctga gcggggccat ggtgargaca cccttggtgg
                                                                    600
cttgtcccac atcaagctgg gargtgacac tgaggatgca ttagtctgca gcgtatgata
                                                                    660
aaaacggcat ttcaggccag gcgtggtggc tcatgc&gt caccccagca ccttgggagg
                                                                   720
                                                                    780
ccgaggtggg cagatcacat gaggtcagga ctttgagacc agcctggcca acatggtgaa
                                                                    840
aactcatctg tactaaaaaa acaaaaatta tgtgggttgg tggtgtgtgc ctgtaatccc
                                                                    900
agctacttgg gaggctgagg caggagaatc acttgaacct gggaggcgga ggctacaacg
                                                                    960
aaaaactcga
                                                                    970
<210> 279
<211> 1388
<212> DNA
<213> Homo sapiens
<400> 279
ggcacgaggt aagttgcaag gtacacccac gggtg&tta tcactcttac aaagatgata
                                                                     60
                                                                    120
actaatgaag accgcatcta gaatgctctt actggagatg gtttacagag catttttaat
                                                                    180
catcatactt agatttatat taatatttct tttcaaacta aattattcca aactgtgccc
                                                                    240
tgagatacca tttggcctca agttcttttc tttcgtctgt attaaggtgc aaataaaaaa
                                                                    300
gactagtagg aaaagaaggc cttatttatg aaggttgtct atagctctga gcttggtagc
                                                                    360
tacataaaat gagtaataac ctaaataagt aaaactaatg aagatctaac tagattactt
tgcttaatat taacatttta cccgcccccc gccgtgaaac atttggcaga tgttctgcag
                                                                    420
                                                                    480
gactcatgag gacattggtg gctacagctg cttctggcac tgcccccca acccccagt
gaggtgaact tctttacaca tccagcaagc tttagttatc ttcttctccc atttgagata
                                                                    540
actgtggcta caagaatctc agttaaatca gatgtttaaa ttaggtgcca aaaaatctta
                                                                    600
cagacactga actaatactt aaatcaagga acacttcagt tctccataaa atctggtgcc
                                                                   660
attttccaaa gaaacagagg atctttgttt cacacccgtg gtactggaat tgcaacagtg
                                                                    720
aggcattcta gctctcacat gccaatgcga gtggcattca ttcttgctca ctcatttctg
                                                                    780
cttctcattg tcacacttgg aggctctttg ggggtatgtt tcagttgatc tgagaaactg
                                                                    840
                                                                    900
ggtgttacca atttactaga gagttctta aaatgtatct gaaacaaact attaatgggc
                                                                    960
attctgtggt ggtaaaacca ggcaacgcct ccctacacta tctgtccttt cagagctaag
                                                                   1020
aatctgttat tttgaattgt tcacgaagag tgattctgac tctgcttcag tgcacacttt
                                                                  1080
acaaaccatc gagcctcatc aaaggagtga gttgagctga ggaattagag taaagatac
aggtatagtg ccgggcgtgg tgctcacgcc tgtaatccca acattttggg aggacaagga
                                                                   1140
                                                                   1200
gggtggatca cctgaggtca ggagttcgag accagcctga ccaacatgga gaaaccctgt
                                                                   1260
ctttactaaa aatacaaaat tagctggacg tggtggcaca tgcctgtgat cacagctact
                                                                   1320
caggaggctg aggcaggaga atcgcttgaa cccaggaggc ggaggttgtg gtgagccgag
atcacgtcac tgcactccag cctgggcaac aagagtgaaa ttccatctca aaaaaaaaa
                                                                   1380
                                                                   1388
aaaaaaa
<210> 280
<211> 649
<212> DNA
<213> Homo sapiens
<400> 280
```

```
60
qqcacaqqqa aqtqtcaaqc qgqcqctccc ccatctccgc cgctattacc actgaacccg
gaccccctac ccaggtccag ggccagccgc catgacgaac gtgtactcct tggatgggat
                                                                     120
                                                                     180
tctqqtqttt ggtttgctct ttgtttgcac ctgtgcctac ttcaagaaag tacctcgtct
                                                                    240
caaaacctgg ctgctatcag agaagaaggg tgtttggggt gtgttttaca aagccgctgt
                                                                     300
gattggaacc aggctgcatg ctgctgtggc aattgcttgt gttgtaatgg ccttttacgt
                                                                     360
cctgtttata aaatgaattc caaagcaccc aagtcatcaa ctgccaacca aggggacggg
                                                                   420
gatgaagaac ctgttggaga cctgaaccca gtgtaggaga gttcagctgaaatcatcggt
ccccaggatg acaccacagc atctgcccct gctatatgtg gggaaaactc atggtcacga
                                                                     480
acattattta tgcttcaggg gactacagaa agccagcttc ctttgatcta tgtgtaaatc
                                                                     540
                                                                     600
agtccttggc agagtgcata taatgtccgg ataaattaca cccctcggtg ataagattac
                                                                    649
<210> 281
<211> 1699
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (9)..(9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1692)..(1692)
<223> n equals a,t,g, or c
<400> 281
                                                                      60
qqcatcttnt atttagcaca atgtttttaa ggtttattca tgttgtagca aggtacgcaa
                                                                     120
ttgtttttca tttaaagaaa aagtctcaat gctattacaa ttttccatat tctttgcacc
                                                                     180
tgtggtctgt ctccctaaat atagcccctt tatgaaggag gaatgcaaag ctgatccaac
                                                                     240
tagagactac aaattccttt atatttatat agaaaggggc acatagtaat gaattggaag
ccatatccaa gctagaatca tctagattta gtgagattga ctagtgcaac ccaattttt
                                                                     300
gcactcatcc cctgtccatc aggtacctgg aaatgattry aawgattttg aactaggtta
                                                                     360
                                                                    420
ctggtataat catactgctg ttgagattag caggcaaattaccaagttag ttttttattg
                                                                     480
qaqqqqqaqa qqtcaatqtq tqaqqqtqca taqtqqaqac tqgqgaccag gctgacaaag
                                                                     540
atgaattqtt ttaqqtaqtq atgactttqa qgtaatggga taagtgagtg aaaatgactg
                                                                     600
gttggcgttg gagatgggat ggagatggag cttggagaaa aagaatagca ctagtaaatg
                                                                     660
gatttagcta gacaaaggag atttacccta ttccatttag cacagtgagg agaggctaga
                                                                     720
cagctaggat gcaataaaaa aaattttaat gagaaatgtg tgtggtagat taattttatt
aatctcaagt tatagattaa aaaatttaag taccacataa atgccatttg cctttgctaa
                                                                     780
                                                                    840
tgttacattt ttatgaagaa ggagccttgc ataagaatg atataatgga cttttgggac
                                                                     900
ttgagggaga agcttgggag ggggggtaaa ggataaaaaga catattgggt gctgtgtgta
cactgcttgg gtgacaagtg gactaaaatc tcagaaatca ccactaaaga acttatctac
                                                                     960
ataaccaaaa atcacctgta ccccagaaac tattgaaata aaaaaaaaga aggggacttg
                                                                    1020
gacagatage egtattettt gecaaattat agttacatte tgeteatggg ggattaggag
                                                                    1080
                                                                    1140
gttcaatgga agaaaggccc cactcagctt tctcccctct taaaatgttg ccttgtaaat
                                                                    1200
tagggaattt tgcataaagc tctgaccttt acttccaagg cctttactga gaatgggttt
                                                                   1260
ggatacttgg agatagatcc tgactccctatccctag atctttattt atcctatttg
                                                                    1320
gaacccaggg aaatggcctt aaagctgatg aaccacaggg tgtccaagtc atggagctat
                                                                    1380
tgaggttctc cccaagtatc ttttaaattg ctgcatttgg gatgggcgca gtggcttaca
cctgaaatcc cagcactttg ggaggctaag ttgggaggat tgcttgggtc tgggagttta
                                                                  1440
aggccagcct gggctagatg gtgagcctct gtctctattt aagaaaatta gaaattagcc
                                                                    1500
                                                                    1560
aggcatggtg acacaccagc tacttataat gctgaggcag gaggatcact tgagcccagg
agtttgcggc agacagtgag ctatgattgt gccactgtac tccagcctgg gtgacagagc
                                                                    1620
                                                                   1680
aagaccctgt ctcttattta aaaæaaaaaa aaaaaaaaaa actcgagggg gggcccgtac
                                                                    1699
ccaatcgcct tncatgatg
```

```
<210> 282
<211> 1782
<212> DNA
<213> Homo sapiens
<400> 282
tgccgagcct ctttggtagc aggaggctgg aagaaaggac agaagtagct ctggctgtga
tggggatctt actgggcctg ctactcctgg ggcacctaac agtggacact tatggccgtc
                                                                      120
ccatcctgga agtgccagag agtgtaacag gaccttggaa aggggatgtg aatcttccct
                                                                      180
gcacctatga ccccctgcaa ggctacaccc aagtcttggt gaagtggctg gtacaacgtg
                                                                      240
gctcagaccc tgtcaccatc tttctacgtg actcttctgg agaccatatc cagcaggcaa
                                                                      300
agtaccaggg ccgcctgcat gtgagccaca aggttccagg agatgtatcc ctccaattga
                                                                      360
gcaccctgga gatggatgac cggagccact acacgtgtga agtcacctgg cagactcctg
                                                                      420
atggcaacca agtcgtgaga gataagatta ctgagctccg tgtccagaaa ctcdtgtct
                                                                     480
ccaagcccac agtgacaact ggcagcggtt atggcttcac ggtgccccag ggaatgagga
                                                                      540
ttagccttca atgccaggct cggggttctc ctcccatcag ttatatttgg tataagcaac
                                                                      600
agactaataa ccaggaaccc atcaaagtag caaccctaag taccttactc ttcaagcctg
                                                                      660
cggtgatagc cgactcaggc tcctatttct gcactgccaa gggccaggtt ggctctgagc
                                                                      720
                                                                      780
agcacagega cattgtgaag tttgtggtca aagacteete aaagetaete aagaecaaga
ctgaggcacc tacaaccatg acatacccct tgaaagcaac atctacagtg aagcagtcct
                                                                      840
gggactggac cactgacatg gatggctacc ttggagagac cagtgctgg ccaggaaaga
                                                                     900
gcctgcctgt ctttgccatc atcctcatca tctccttgtg ctgtatggtg gtttttacca
                                                                      960
tggcctatat catgctctgt cggaagacat cccaacaaga gcatgtctac gaagcagcca
                                                                     1020
gggcacatgc cagagaggcc aacgactctg gagaaaccat gagggtggcc atcttcgcaa
                                                                     1080
gtggctgctc cagtgatgag ccaacttccc agaatctggg caacaactac tctgatgagc
                                                                     1140
cctgcatagg acaggagtác cagatcatcg cccagatcaa tggcaactac gcccgcctgc
                                                                     1200
                                                                     1260
tggacacagt tcctctggat tatgagtttc tggccactga gggcaaaagt gtctgttaaa
aatgccccat taggccagga tctgctgaca taattgccta gtagtcctt gccttctgca
                                                                    1320
tggccttctt ccctgctacc tctcttcctg gatagcccaa agtgtccgcc taccaacact
                                                                     1380
ggagccgctg ggagtcactg gctttgccct ggaatttgcc agatgcatct caagtaagcc
                                                                     1440
agctgctgga tttggctctg ggcccttcta gtatctctgc cgggggcttc tggtactcct
                                                                     1500
ctctaaatac cagagggaag atgcccatag cactaggact tggtcatcat gcctacagac
                                                                     1560
actattcaac tttggcatct tgccaccaga agacccgagg gaggctcagc tctgccagct
                                                                     1620
cagaggacca gctatatcca ggatcatttc tctttcttca gggccagaca gcttttaatt
                                                                     1680
gaaattgtta tttcacaggc cagggttcag ttctgctct ccactataag tctaatgttc
                                                                    1740
tgactctctc ctggtgctca ataaatatct aatcataaca gc
                                                                     1782
<210> 283
<211> 1205
<212> DNA
<213> Homo sapiens
<400> 283
ggcagagctt ttgtgcagca ccctttaaag ggtgactcgt cccacttgtg ttctctctc
                                                                       60
tggtgcagag ttgcaagcaa gtttatcgga gtatcgccat gaagttcgtc ccctgcctcc
                                                                      120
tgctggtgac cttgtcctgc ctggggactt tgggtcaggc cccgaggcaa aagcaaggaa
                                                                      180
gcactgggga ggaattccat ttccagactg gagggagaga ttcctgcact atgcgtccca
                                                                      240
gcagcttggg gcaaggtgct ggagaagtct ggcttcggt cgactgccgc aacacagacc
                                                                     300
agacctactg gtgtgagtac agggggcagc ccagcatgtg ccaggctttc gctgctgacc
                                                                      360
ccaaatctta ctggaatcaa gccctgcagg agctgaggcg ccttcaccat gcgtgccagg
                                                                      420
gggccccggt gcttaggcca tccgtgtgca gggaggctgg accccaggcc catatgcagc
                                                                      480
                                                                      540
aggtgacttc cagcctcaag ggcagcccag agcccaacca gcagcctgag gctgggacgc
catctctgag gcccaaggcc acagtgaaac tcacagaagc aacacagctg ggaaaggact
                                                                      600
cgatggaaga gctgggaaaa gccaaaccca ccacccgacc cacagccaaa cctacccagc
                                                                      660
ctggacccag gcccggaggg aatgaggaag æaagaagaa ggcctgggaa cattgttgga
                                                                     720
aacccttcca ggccctgtgc gcctttctca tcagcttctt ccgagggtga caggtgaaag
                                                                      780
```

```
840
acccctacag atctgacctc tccctgacag acaaccatct ctttttatat tatgccgctt
                                                                     900
tcaatccaac gttctcacac tggaagaaga gagtttctaa tcagatgcaa cggcccaaat
                                                                      960
tcttgatctg cagcttctct gaagtttgga aaagaaacct tcctttctgg agtttgcaga
                                                                     1020
qttcagcaat atgataggga acaggtgctg atgggcccaa gagtgacaag catacacaac
                                                                     1080
tacttattat ctgtagaagt tttgctttgt tgatctgagc cttctatgaa agtttaaata
                                                                     1140
tgtaacgcat tcatgaattt ccagtttca gtaaatagca gctatgtgtg tgcaaaataa
                                                                     1200
aagaatgatt tcagaaaaaa aaaaaaaaa aaactcgggg ggggccggta cccattygcc
                                                                     1205
ccaaq
<210> 284
<211> 462
<212> DNA
<213> Homo sapiens
<400> 284
                                                                       60
gaatteggea egagetggge teaagtgate eteetgeega ggeeteecaa attgetggga
ctgcagctgt gagccaccat gcccagcctt aacttggttt taagacctct gatttgcctt
                                                                      120
                                                                      180
qcctcaatta cctcctttct tattttcttt cctttgttga ctctcatact ctgttctcct
                                                                      240
aatteteece etttteeact eeetgæcae eetgaaagae acacacae acaataagtg
                                                                      300
qqtqqaqtaa qaagtcaacq gagttggata taagcattcc tgcttttctg acatctccag
tgtcttggag aacaaggatt ctagaatgag ggctcctcat tatgcttcct ttcaacattt
                                                                      360
tttctctgtg ttacttaagc tttcacccca agcatgtttg acagagagcc agtgcatcc
                                                                     420
                                                                      462
ccttactttt tacaaaaata aaaaaaaaaa aaaaaaactc ga
<210> 285
<211> 809
<212> DNA
<213> Homo sapiens
<400> 285
                                                                       60
ggcacgagga gaatcatggg cctctggctg ggcatgctgg cctgtgtctt cctggcaact
                                                                      120
gctgcctttg ttgcttatac tgcccggctg gactggaagc ttgctgcaga ggaggctaag
                                                                      180
aaacattcag gccggcagca gcagcagaga gcagagagca ctgcaaccag acctgggcct
gagaaagcag toctatotto agtggotaca ggcagttoco otggoattac ottgacaacg
                                                                      240
                                                                     300
tattcaaggt ctgagtgcca cgtggacttc ttcaggactc cagaggaggc ccacgoctt
                                                                      360
tcagctccta ccagcagact atcagtgaaa cagctggtca tccgccgtgg ggctgctctg
ggggcggcgt cagccacact gatggtgggg ctcacggtca ggatcctagc caccaggcac
                                                                      420
tagcaaagaa gcttggaaat agaaagccag gagtggctgt ccccagtatg caaacacacc
                                                                      480
                                                                      540
acggtctgcc ctgcaaaaac accaatgggg tctagtgcag gtggacactt tgaaccactc
                                                                      600
ctcaaaaaaa gaactttggc tgattccttg tggtgacact cagaggggtc tgaacagact
tgacaattct gttctggtca agctggagtt ttcttctgtg acttggactg ctctacagaa
                                                                      660
gacatcagcc aactgcacga gtcagagtcc agggattgtc actattatta taatgtaaa
                                                                     720
                                                                      780
tggcttcaaa tgggacactg cagataaaat cacaaaaacc actgttatat taaagattac
                                                                      809
acatttcctg gaaaaaaaaa aaaaaaaaa
<210> 286
<211> 1151
<212> DNA
<213> Homo'sapiens
<400> 286
                                                                       60
ggcacgagtg tcaatgaaag tgtttctaat gcaactgcga ttgactccca gatagctaga
                                                                      120
agtttgcaca tcccactcac ccaggatata gctggtgacc caagctatga aattagcaaa
cagagactca gtattgtcat tggcgtggtt gctggcatta tgacggtgat tctaatcatc
                                                                      180
                                                                     240
ttaattgtag tgatggcaag gtactgcagg tccaaaaata aaaatggctatgaagccggc
                                                                      300
aaaaaagatc acgaagactt ttttacaccc caacagcatg acaaatctaa aaagcctaaa
                                                                      360
aaggacaaga aaaacaaaaa atctaagcag cctctctaca gcagcattgt cactgtggag
```

```
420
gcttctaagc caaatggaca gaggtatgat agtgtcaatg agaagctgtc agacagccca
                                                                 480
agcatggggc gatæaggtc cgttaatggt gggcccggca gtcctgacct ggcaaggcat
                                                                 540
tacaaatcta gttccccatt gcctactgtt cagcttcatc cccagtcacc aactgcagga
                                                                 600
aaaaaacacc aggccgtaca agatctacca ccagccaaca catttgtggg agcaggagac
                                                                660
aacatttcaa ttggatcaga tcactgctct gagtacagct gtcaaccaa taacaagtac
                                                                 720
agcaaacaga tgcgtctaca tccatacatt actgtgtttg gctgaattcc actctaatat
gatgctccat tatgcaccat actgtgatga cctttctact ccgaaacctg ctggagcctg
                                                                 780
840
900
                                                                 960
cagtattaat gcagaaatgt gctactaatg gatgtctgag tcaccagaaa ttccattctt
aaagaggcgg ttagcaccta ttagacgtaa cagtgatgtc ttttaaaaaaa tccaaaagca
                                                                1020
                                                               1080
tattgcaaca ataagtttga gactttgtgt gaacaaagggaaattcagcc tcttatgtct
ttgtctttaa tacattaaat actgattttg aataaaaatc taaattgatc aataaaaaaa
                                                                1140
                                                                1151
aaaaaaaaa a
<210> 287
<211> 308
<212> DNA
<213> Homo sapiens
<400> 287
ggcacgaggc ggcgctgcga ggacccatgc agctgacgct ggggggcgcg gccgtgggcg
                                                                  60
cgggcgccgt gctggccgc agcctgctct gggcgtgcgc cgtgggcctc tacatggggc
                                                                 120
agctggagct ggacgtggag ctggtgcccg aggacgacgg gacggcctcc gcggaaggcc
                                                                 180
ctgatgaggc gggtcggccg ccacccgagt gagcgacacggccgtggggc ctggcaggcg
                                                                240
                                                                 300
308
aaaaaaa
<210> 288
<211> 1303
<212> DNA
<213> Homo sapiens
<400> 288
                                                                  60
aggttaaatg cgtacttttc taacctttgt tattttgaaa gttattctga tattcctatc
                                                                 120
cagttgtgcc tcatttacta gaaatttgct cacatggcca aatgatgtat ccacagaaca
                                                                 180
atttgaaact agaccttttg gaagcgaact cctacaaact gtcatcaatg ttagcagaac
                                                                 240
ttgagcaaag acctcaaccc agccatcctt gtagtaatt catcttcagg tggagggaaa
aggtaacatt taaggagact ggttgtaatt tcttgattgg gcctgctggg tggagtggct
                                                                  300
taaagtagca tcagggcaaa aaaggtgtta ggaattctat gtgatattaa tattcatgca
                                                                  360
gttagttaag aagataaatg ttttwatttt tcttttgagc acaataacaa gagctagaca
                                                                 420
aaaccgaata cattctgtgt acaccaaact tctatgagaa gctaaaaaaac acttttgatt
                                                                 480
tottottot catcatacot gaatttoato otttggatgt gottttacag taaaatttot
                                                                  540
                                                                  600
attaaattga aattttaata ttcqttcaga cctaaattat aagattttgt ggtatgtatt
agtctcatct gtttaagatg gtgcctaatg cagtaatgc atcagtacag ctctgaaatg
                                                                 660
                                                                 720
cttgtagcta tttttattac tgatcagaag ggggaactgt aatcatcttg tgaagggaca
                                                                 780
gttttctaag gctcaagagc tcgaaaacaa tctcaatcat ttacagggtt gtgatcattt
                                                                 480
cacttgcatt aagccaacta aagttgtatt tgtaaaagta atgctatgaa tattactatt
                                                                  900
tgacctagac acataggtta gaattggaaa cacaggctat aaagtatagt aattgtgtaa
                                                                  960
ttgtgaaaat attaaggctt caactcaaaa ctgaaacaca gtagggctta gaaatctttg
                                                                1020
aattatttat acccctcagt ttaaaaactt ccagtccagg cgcagtggct catgcctgta
                                                                1080
atcccagaac tttgggaggc caaggcaggc ggatcacctg aggtcaggag ttcgagagca
gcctggctga cacggtgaaa ccccgtctct actaagaata caaaaattag ccaggcatgg
                                                                1140
                                                                1200
tggtgggcac ctgtaatccc agctacgggg gaggctgagg caggagaatc acttgaaccc
gggaggtgga ggttgtagtg ggccaagatc atgccactgc actccagcct gggtgaaca
                                                               1260
                                                                1303
ggcaagactc tgtctaaaaa aaaaaaaaaa aaaaactcgt agg
```

```
<210> 289
<211> 4412
<212> DNA
<213> Homo sapiens
```

<400> 289 60 aacattagat ctcaatgaaa accagaatgg aaccctttca ctatcataaa ctcatttata 120 aaagtgccca tgatgaatag caagaadac ccagtggccc atctcattga ccaaacttag aaagccaagg tggggcatct gcagctctcc cacaatctga gtttgtgttg atccttgtac 180 240 cccacaacct gaaacatctt cttatatata tcgagcgagc tctcagccct tctgttttca 300 aggication ggagaaactg gagatgicca agticcagec cactetecta acactacec gcatcaaaga gactaagcca gactatgggg gaaagggaga taagaaggat cctggaactt 360 taaagaggga aagagtgaga ttcagaaatc gccaggactg gactttaagg gacgtcctgt 420 gtcagcacaa gggactggca cacacagaca cacgagaccg aggagaaact gcagacaaat 480 ggagatacaa agacttagaa ggacagctcc tttcacctca tcctacttgt ccagaaggta 540 600 aaaagacaca gccagaaaga aaaggcatcg gctcagctct cagatcagga caggctgtgg atctgtggcg gtactctgaa agctggagct gcagcacacc ccttttgtat tgctcaccct 660 720 cqqtaaaqaq agagaggct gggaggaaaa gtagttcatc taggaaactg tctgggaac caaacttctg atttcttttg caaccctctg cattccatct ctatgagcca ccattggatt 780 840 acacaatgac atggagaatg ggaccccgtt tcactatgct gttggccatg tggctagtgt gtggatcaga accccacccc catgccacta ttagaggcag ccacggagga cggaaagtgc 900 ctttggtttc tccggæagc agtaggccag ctcggtttct gaggcacact gggaggtctc 960 gcggaattga gagatccact ctggaggaac caaaccttca gcctctccag agaaggagga 1020 1080 gtgtgcccgt gttgagacta gctcgcccaa cagagccgcc agcccgctcg gacatcaatg gggccgccgt gagacctgag caaagaccag cagccagggg ctctccggt gagatgatca 1140 1200 gagatgaggg gtcctcagct cggtcaagaa tgttgcgttt cccttcgggg tccagctctc 1260 ccaacatect tgccagettt gcagggaaga acagagtatg ggtcatetca geceetcatg 1320 cctcggaagg ctactaccgc ctcatgatga gcctgctgaa ggacgatgtg tactgtgagc tggcggagag gcacatccaa cagattgtgc tcttccacca ggcaggtgag gaaggaggca 1380 1440 aggtgagaag gatcaccagc gagggccaga tectggagca geceetggae eetageetea 1500 tccctaagct gatgagcttc ctgaagctgg agaagggcaa gtttggcatg gtgctgctga 1560 agaagacget geaggtggag gagegetate eatateeegt aggetggaa geeatgtaeg aggtcatcga ccaaggcccc atccgtagga tcgagaagat caggcagaag ggctttgtcc 1620 agaaatgtaa ggcctctggt gtagagggcc aggtggtggc ggaggggaat gacggtggag 1680 1740 ggggagcagg aaggccaagc ctgggcagcg agaagaagaa agaggaccca aggagagcac 1800 aagtcccacc aaccagagag agtcgggtga aggtcctgag aaaactggcc gccactgcac 1860 cagetttqcc ccaacetece tcaacececa gagecaceae cetteeteet gecceageca 1920 caacagtgac tcggtccacg tcccgggcgg taacagttgc tgcaagacct atgaccacca ctgcctttcc caccacgcag aggccctgga ccccctacc ctcccacagg ccccctacaa 1980 ccactgaggt gatcactgcc aggagaccct cagtttcaga gaatctttac cctccatccc 2040 ggaaggatca gcacagggag aggccacaga caaccaggag gcccagcaag gccaccagct 2100 tggagagett cacaaatgee eeteceacea eeateteaga acceageaca agggetgetg 2160 2220 gcccaggccg tttccgggac aaccgcatgg acaggcggga acatggccac cgagacccaa atgtggtgcc aggtcctccc aagccagcaa aggagaaacc tcccaaaaag aaggcccagg 2280 acaaaattct tagtaatgag tatgaggaga agtatgacct cagccggcct actgcctctc 2340 2400 agctqqaqqa cgagctqcag gtqgqgaatgttccccttaa aaaagcaaag gagtctaaaa 2460 agcatgaaaa gcttgagaaa ccagagaagg agaagaaaaa aaagatgaag aatgagaacg 2520 cagacaagtt acttaagagt gaaaagcaaa tgaagaagtc tgagaaaaag agcaagcaag agaaagagaa gagcaagaag aaaaaaggag gtaaaacaga acaggatggc tatcagaaac 2580 2640 ccaccaacaa acacttcacg cagagtccca agaagtcagt ggccgacctg ctggggtcct 2700 ttgaaggcaa acgaagactc cttctgatca ctgctcccaa ggctgagaac aatatgtatg 2760 tgcaacaacg tgatgaatat ctggaaagtt tctgcaagat ggctaccagg aaaatctctg 2820 tgatcaccat cttcggccct gtcaæaaca gcaccatgaa aatcgaccac tttcagctag 2880 ataatgagaa gcccatgcga gtggtggatg atgaagactt ggtagaccag cgtctcatca 2940 gcgagctgag gaaagagtac ggaatgacct acaatgactt cttcatggtg ctaacagatg tggatctgag agtcaagcaa tactatgagg taccaataac aatgaagtct gtgttgatc 3000 3060 tgatcgatac tttccagtcc cgaatcaaag atatggagaa gcagaagaag gagggcattg

```
tttgcaaaga ggacaaaaag cagtccctgg agaacttcct atccaggttc cggtggagga
ggaggttgct ggtgatctct gctcctaacg atgaagactg ggcctattca cagcagctct
                                                                    3180
ctgccctcag tggtcaggcg tgcaattttg gtctgcgcca cataaccatt ctgaagcttt
                                                                    3240
taggcgttgg agaggaagtt gggggagtgt tagaactgtt cccaattaat gggagctctg
                                                                    3300
ttgttgagcg agaagacgta ccagcccatt tggtgaaaga cattcgtaac tattttcaag
                                                                    3360
tgagcccgga gtacttctcc atgcttctag tcggaaaaga cggaaatgtcaaatcctggt
                                                                   3420
atcetteece aatgtggtee atggtgattg tgtacgattt aattgatteg atgcaactte
                                                                    3480
ggagacagga aatggcgatt cagcagtcac tggggatgcg ctgcccagaa gatgagtatg
                                                                    3540
caggctatgg ttaccatagt taccaccaag gataccagga tggttaccag gatgactacc
                                                                    3600
gtcatcatga gagttatcac catggatacc cttactgagc agaaatatgt aaccttagac
                                                                    3660
tcagccagtt tcctctgcag ctgctaaaac tacatgtggc cagctccatt cttccacact
                                                                    3720
gcgtactaca tttcctgcct ttttctttca gtgtttttct aagactaaat aaatagcaaa
                                                                    3780
ctttcaccta ttcatgagtt attattgaaa cctcaaatca taaagcatt taaaagaatt
                                                                   3840
gtttttctaa ctggagggc tctagtgcta aataatagta ctgaaaattg atattattt
                                                                    3900
ccttttctta tatgaaggac cttatttggc atataaaatt ttataaaata tgtatttaaa
                                                                    3960
gctttttctt attttttgta ttaattggta agtgaaaact ctgttaaaga tcacaccaca
                                                                    4020
atgttttcaa gaaacatctg aaaagataaa acaaagaaca aataacttat aatacttact
                                                                    4080
taaattgaca ctttttgaaa tgccagtctg aaaataatta agatatctct gctttgtatg
                                                                    4140
agtttctttt atgaaacttg ataccacggg agtccagtaa tattggccac aaaagccaga
                                                                    4200
4260
agtgtttttt cagatataaa tcggggtcca ggaaatcctc accagaatct ggcactgcag
                                                                    4320
ccaaaggcga tacttccaga gttctagtag gctgctatgg aatttctggc atgaaaattc
                                                                    4380
ttgacccctc acactttacc ccctgtacag ca
                                                                    4412
<210> 290
<211> 1907
<212> DNA
<213> Homo sapiens
<400> 290
ggcacagggg aatcatcgtg tgatgtgtt gctgcctttg tgagtgtgtg gagtcctgct
                                                                      60
caggtgttag gtacagtgtg tttgatcgtg gtggcttgag gggaaccctt gttcagagct
                                                                     120
gtgactgcgg ctgcactcag agaagctgcc cttggctg& cgtagcgccg ggccttctct
                                                                    180
cctcgtcatc atccagagca gccagtgtcc gggaggcaga aggtaccggg gcagctactg
                                                                     240
gaggactgtg cgggcctgcc tgggctgccc cctccgccgt ggggccctgt tgctgctgtc
                                                                     300
catctatttc tactactccc tcccaaatgc ggtcggcccg cccttcactt ggatgcttgc
                                                                     360
cctcctgggc ctctcgcagg cactgaacat cctcctgggc ctcaagggcc tggccccagc
                                                                     420
tgagatctct gcagtgtgtg aaaaagggaa tttcaacgtg gcccatgggc tggcatggtc
                                                                     480
atattacatc ggatatctgc ggctgatcct gccagagctc caggcccgga ttcgaactta
                                                                     540
caatcagcat tacaacaacc tgctacgggg tg@gtgagc cagcggctgt atattctcct
                                                                    600
cccattggac tgtggggtgc ctgataacct gagtatggct gaccccaaca ttcgcttcct
                                                                     660
ggataaactg ccccagcaga ccggtgaccg tgctggcatc aaggatcggg tttacagcaa
                                                                    720
cagcatctat gagcttctgg agaacgggca gcgggcgggc acctgtgtcc tggagtacgc
                                                                    870
cacccccttg cagactttgt ttgccatgtc acaatacagt caagctggct ttagcgggga
                                                                    840
ggataggctt gagcaggcca aactcttctg ccggacactt gaggacatcc tggcagatgc
                                                                     900
ccctgagtct cagaacaact gccgcctcat tgcctaccag gaacctgcag atgacagcag
                                                                    960
cttctcgctg tcccaggagg ttctccgga cctgcggcag gaggaaaagg aagaggttac
                                                                   1020
tgtgggcage ttgaagacet cageggtgee cagtacetee aegatgteee aagageetga
                                                                   1080
gctcctcatc agtggaatgg aaaagcccct ccctctccgc acggatttct cttgagaccc
                                                                   1140
agggtcacca ggccagagcc tccagtggtc tccaagcctc tggactgggg gctctcttæ
                                                                  1200
gtggctgaat gtccagcaga gctatttcct tccacagggg gccttgcagg gaagggtcca
                                                                   1260
ggacttgaca tettaagatg egtettgtee eettgggeea gteattteee etetetgage
                                                                   1320
ctcggtgtct tcaacctgtg aaatgggatc ataatcactg ccttacctcc ctcacggttg
                                                                   1380
ttgtgaggac tgagtgtgtg gægtttttc ataaactttg gatgctagtg tacttagggg
                                                                   1440
gtgtgccagg tgtctttcat ggggccttcc agacccactc cccacccttc tcccttcct
                                                                   1500
ttgcccgggg acgccgaact ctctcaatgg tatcaacagg ctccttcgcc ctctggctcc
                                                                   1560
tggtcatgtt ccattattgg ggagccccag cagaagaatg gagaggagga ggggctgag
                                                                  1620
```

3120

```
tttggggtat tgaatccccc ggctcccacc ctgcagcatc aaggttgcta tggactctcc
                                                                     1680
tgccgggcaa ctcttgcgta atcatgacta tctctaggat tctggcacca cttccttccc
                                                                     1740
tggcccctta agcctagctg tgtatcggca ccccacccc actagagtac tccctctcac
                                                                     1800
ttgcggtttc cttataoldsymbol{x}cc acccetttct caacggtect tttttaaagc acatetcaga
                                                                     1860
ttaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaggg cggccgc
                                                                      1907
<210> 291
<211> 1476
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (69)..(69)
<223> n equals a,t,g, or c
<400> 291
ncctatttct gcttactgtg ttaccagaga gcctgggggt ctggatccta tctggccccg
                                                                        60
tcaggtggna ttgccaaatg agcagttctc ttgccccagt ccctttcctg tgctataaat
                                                                      120
aagccccatg tttatttct tatgttattg aaatgagcac ttgtgatttg ggcctctttt
                                                                      180
gaggagtcca gagagcgtcc atccggtgcc tggtgagggc cctgcatggc tggctgctgt
                                                                      240
ctgaagctat ttggagtcct ctccctgtgt tttctatgtg gcttaatttc aatagaaagg
                                                                      300
gttatatgca accetgtate tgctgatttt caggtttcaa etttetgca gegteaetge
                                                                     360
ctgcttagaa gtaaagttat gtttctcatt aaggggataa cagccacaat tgaggtaatt
                                                                      420
aacgaaaatt gtacattggt ggcagcacct cctataggat ttccaatagt ctttctctag
                                                                      480
tagatcattg ggggctcacc ttgatctcct ctcttctgtc taccctgcac caaaatacct
                                                                      540
tgtcctgttt tctggatata gttccaataa ttttttcct aacagccttt ttgtcaccag
                                                                      600
ttggtttgat atcttacaac ttggccaaat gagggttcca ttaactccat cttgtctaat
                                                                      660
gcatggagaa ttcaaggatt tttttttcc tcttttcata gcaccttcca gttgccagtt
                                                                      720
gtaccctggc ccttctttgg aagtcataat gatgaatatc attaataag agattgatgc
                                                                     780
tctttcaact ctcatgtcat ctataccatc tcagtggaga ggatgacttt ggatgaggtt
                                                                      840
ggaatagaaa ggaaacattt ggaagtccac tgcagtgtat tatatgctgt gtggaagtct
                                                                      900
gggggttagg aaatacctgg agggagaact tcctaagaaa tgattittgg ttcttttagg
                                                                      960
ccttaacagc acaataaaag tatcccatga gaccattatg agcaggacac gacattgttt
                                                                     1020
cacaccttgg gctgtgacta tttacttctc ggtacagatt actctggtta aatcactcag
                                                                     1080
taaagaaatc ttttcatgct cacaatctga acctgaaggc tattactgaa gagaattgca
                                                                     1140
tctgacaaca aaatttaatt tacttccaga gaaaggcca gaagaaagta aattttcatt
                                                                    1200
tatgttttta agtctattgt cttaaaaaaga ttcttttccc ttaaaaaaata aaaaaacctg
                                                                     1260
atgtgatggg ttccttcagt caacaaatac ttattgagca gttattgtgt gccagatact
                                                                     1320
gttcttggtg tgaggatatg gcactgaaca aaacaatgta cctactttcg tcaagcttac
                                                                     1380
                                                                     1440
attctagtga ggaagataac caaaacaagt gactgaatat aatttcaaat gtcaataaat
gctgtgaaga aaataaagca gagtattata tgtaaa
                                                                     1476
<210> 292
<211> 861
<212> DNA
<213> Homo sapiens
<400> 292
gaattcggca cgagcctgag tcaacttgat atccamgctt tttacttcaa ttatctggca
                                                                      60
agattacata gactgtcaaa gtttgtgaaa gtttagcaag aaaactgtct tactcacaga
                                                                      120
accacaggac taactgactg aaccacactc caccatttgc ccctatttcc aggcgttatg
```

```
240
gtcaccctgt agtttctaat ctgtatagat gtgtagagca tgcctcttcc ctcttccttt
                                                                  300
cccctccctq ttttcctttc ctcttgccct ttcttaatgt ctgtytctat tggcttcttg
                                                                  360
atcttggtct ttaatgttca tccttaagct tgcttctctc ttcagactac tgattcagcc
tcttgcattt tctttcaact tgggccaaaa aaacaggcaa cattttcttc ctccactacc
                                                                  420
                                                                  480
tcatcatcat ccaatttatt cctttagtttatattaccac aactctccta aacgtcccaa
                                                                  540
gtctattatt aagtctaaca acttagcttc gaacctcaat ccaagcatct gacaacacac
tgaaatgtgc aagcaagagt cccwatggcc gggtgcagtg gctcatgcct gtaatcccag
                                                                  600
cactttggga ggccaaggtg ggatcacctg aggtcgggag ttcgggacca gcctggccag
                                                                 660
                                                                  720
tatggtgaag ccatgtctmw actaaaaata caaaattagc cggacattgt ggtgcacgtc
                                                                  780
tgtcatccca gcaaggcagg cgaatcgctt gaacccggga ggcggaggtt gcggtgagcc
                                                                  840
qqqatcqtqc cattqcactc cagcctggtc aacagagcga gactccgcct cattaaaaaa
                                                                  861
aaaaaaaaa aaaactcgta g
<210> 293
<211> 587
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (587)..(587)
<223> n equals a,t,g, or c
<400> 293
natttctcac aatgacaaat tctcaaatat tgctaatagt actgtggatt ttcctacatt
                                                                    60
                                                                   120
ggtaaattga aggaattgct aaatgctgaa ttcagcaacc agtttgagat tgttgaaaat
                                                                  180
aaagattgtt totttttcaa tgcaagttca cagatcactg gagttctagc tacagtttgt
tctagaccag aggttgcaga tattttgtc ctataaagag acacatggtt aatattttg
                                                                  240
                                                                  300
gctttgtgag ttgtatagtt ttccgttgta gctgttcagc tctgctacat gaaagcaacc
atagaccata ccttaacaag tggtcacttt tgagtaccaa taaaacttta tttagaaata
                                                                  360
                                                                 420
acagagggct ggatttggtc ctagtttgct gaaccctttt ctagatgaag gctctcttg
                                                                   480
ccaagactgg ctccctacct tggctgacaa attctcactt tgggacttag tcattgttgc
                                                                   540
tgctctctgt tattttgcat gtcttttctc atgtttaggt gctgtgtctt aatacttttt
                                                                   587
tcttacattt aatttaacaa tcattactga gcgctggtat gtctagn
<210> 294
<211> 477
<212> DNA
<213> Homo sapiens
<400> 294
                                                                    60
gaattcggca cgaggtgagt atggcttttg tcttccatct tgctcagggt actttggaac
                                                                   120
cgctatacat tgcaggagct tagcttctgg ttaccatggt ttgcttccag agcaacaagc
180
                                                                   240
ttggccatgc ctttttgagt ttaccttttt atattttgtc catcattgcc atgtgtttgg
                                                                   300
agcagtgggc gttccataac atgaactcac tgtaccatca cgaatgggaa gtaaggggaa
                                                                   360
accttatcca tgtggatttt actcttccct gattccctaa attgggtttg caaaatacta
ctgtgcactt tcttgatgat tcgggcttat ctttatgact gtctgtkttt gtgtcagact
                                                                  420
                                                                   477
<210> 295
<211> 1930
```

540

720

600 660

780

tgtatgttaa ggattaacat taagacaata tggagcaagc actacatgaa agcagtgacg

attggggaat tagtggcaca ttatccaat agttaatata gtgactgtaa tatctaaata tcatcctata gagtttttct tagatttttt cattagtata acaggatgtt gtgtatgtta

cactgtatat actgttattt tgagagacaa ttttgggaat tttgccaagg tattttcaat tataggtctt taatacattc taagcaagtg ggtctcaaaa atgggaattt tacacocac

attettette ceateeggtg gacatttgte aatgtgegea aatatttetg attaaaaaaa

```
aaaaaaaaa a
                                                                     791
<210> 297
<211> 2425
<212> DNA
<213> Homo sapiens
<400> 297
cgctgccgat cgccgggagg accccgcct cgccgaagac gggcggggca agccgagcct
                                                                     60
cacggggtcc ccggagctgg gccgggcctc cagatggaga aggcqcaacq gqqaqttctt
                                                                     120
gagtaagcca gagcggtgtc cagcgcggtg tagccgcagc cgccgctgtc aggcgcagca
                                                                     180
acggacaacc ccgtagaagt cggtcggcag gtcctctcca acccgccgct accgcgcgc
                                                                    240
tgtgggagag accccagcag gagcccaagg gcagctacgg gggcgcgaag gccgctggcg
                                                                     300
ccgcctcggc cagcccttcc cgcgcggttc cactgcctta aggatgacag tcgtagggaa
                                                                     360
ccctcgaagt tggagctgcc agtggttgcc aatcctgata ctgttgctgg gcacaggcca
                                                                     420
tgggccaggg gtggaaggcg tgacacacta caaggccggc gaccctgtta ttctgtatgt
                                                                    480
caacaaagtg ggaccctacc ataaccctca ggaaacttac cactactatc agcttccagt
                                                                    540
ctgctgccct gagaagatac gtcacaaaag ccttagcctg ggtgaagtgc tggatgggga
                                                                     600
660
gtgccacatg cagctcagtt ctgcacaggt ggagcagctg cgccaggcca ttgaagaact
                                                                     720
gtactacttt gaatttgtgg tagatgactt gccaatccgg ggctttgtgg gctacatgga
                                                                     780
ggagagtggt ttcctgccac acagccacaa gataggactc tggacccatt tggacttcca
                                                                    840
cctagaattc catggagacc gaattatatt tgccaatgtt tcagtgcggg acgtcaagcc
                                                                    900
ccacagcttg gatgggttac gacctgacga gttcctaggc cttacccaca cttatagcgt
                                                                     960
gcgctggtct gagacttcag tggagcgtcg gagtgacagg cgccgtggtg acgatggtgg
                                                                    1020
tttctttcct cgaacactgg aaatccattg gttgtccatc atcastcca tggtgcttgt
                                                                   1080
gtttttactg gtgggttttg tggctgtcat tctaatgcgt gtgcttcgga atgacctggc
                                                                   1140
tcggtacaac ttagatgagg agaccacctc tgcaggttct ggtgatgact ttgaccaggg
                                                                    1200
tgacaatggc tggaaaatta tccatacaga tgtcttccgc ttccccccat accgtggtct
                                                                    1260
gctctgtgct gtgcttggcg tgggtgccca gttcctggcc cttggcactg gcattattgt
                                                                   1320
catggcactg ctgggcatgt tcaatgtgca ccgtcatggg gccattaact cagcagccat
                                                                    1380
cttgttgtat gccctgacct gctgcatctc tggctacgtg tccagccact tctaccggca
                                                                    1440
gattggaggc gagcgttggg tgtggaacat cattctcaccaccagtctct tctctgtgcc
                                                                   1500
tttcttcctg acgtggagtg tggtgaactc agtgcattgg gccaatggtt cgacacaggc
                                                                   1560
totgocaged acaaccated tgetgettet gacggtttgg etgetggtgg gettteecet
                                                                    1620
cactgtcatt ggaggcatct ttgggaagaa caacgccagc ccctttgatg cacctgtcg
                                                                    1680
caccaagaac atcgcccggg agattccacc ccagccctgg tacaagtcta ctgtcatcca
                                                                   1740
catgactgtt ggaggcttcc tgcctttcag tgccatctct gtggagctgt actacatctt
                                                                    1800
tgccacagta tggggtcggg agcagtacac tttgtacggc atcctcttct ttgtcttcgc
                                                                   1860
catcctgctg agtgtggggg cttgcatctc cattgcactc acctacttcc agttgtctgg
                                                                   1920
ggaggattac cgctggtggt ggcgatctgt gctgagtgtt ggctccaccg gcctcttcat
                                                                   1980
cttcctctac tcagttttct attatgcccg gcgctccaac atgtctgggg cagtacagac
                                                                   2040
agtagagttc ttcggctact ccttactcac tggttatgtc ttcttcctca tgctgggcac
                                                                   2100
catctccttt ttttcttccc taaagttcat ccggtatatc tatgttaacc tcaagatgga
                                                                   2160
ctgagttctg tatggcagaa ctattgctgt tctctccctt tcttcatqcc ctqttqaact
                                                                   2220
ctcctaccag cttctcttct gattgactga attgtgtgat ggcattgttg ccttcccttt
                                                                   2280
tgccctttgg gcattccttc cccagagagg gcctggaaat tataaatctc tatcacataa
                                                                   2340
ggattatata tttgaacttt ttaagttgcc tttagttttg gtcctgattt ttctttttac
                                                                   2400
aattaccaaa ataaaattta ttaag
                                                                   2425
<210> 298
<211> 1543
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
```

```
<222> (76)..(76)
<223> n equals a,t,g, or c
<400> 298
cttgactgtg ttttattatt tcatggcttg tatgagtgtg actgggtgtg tttctttagg
                                                                       60
gttctgattg ccagtnattt tcatcaataa gtcttgcaaa gaatgggatt gtcattcttc
                                                                      120
acttcagcac agttctagtc ctgcttctct ggagtagggt tgttgagtaa ggttgcttgg
                                                                      180
gttgtgcatt gcacaagggc acatggctgt gaggtgtatc ctggcggggg gctgtctacc
                                                                      240
tgcagtgagg ggcacctttt ctgttttgct caaaggcatg tataagccaa tgggtgacct
                                                                      300
tatttcctgt gtcttcaggt gtgtggcagg gggcctgggg tggggaggtg gggcgagga
                                                                     360
gcagtgtgtg gaaagcettg ttgtcacctg aagcacgcca ggtccagatt gaccaatggt
                                                                      420
tttctcactt cagggccmac ccacgccccc tttctgctga ggtttgggtg ccatctagtg
                                                                      480
gtgggatggg acttggttga ctacatttaa ggtaaggtgg acccagcaac tcccagaaac
                                                                      540
aactccgggg acaccactcc catcacact ccacaccgag cctggtgccc ggtctgtgcc
                                                                      600
cgagctcagc gggaccagga agggatgggc cctgccaggg ttgcccctgc actgtgcatt
                                                                      660
ctcgcctggg aggcacaagt tctttcatct gcttttcctt cagaggtgct gagcccacgc
                                                                      720
catagcccct gtgggatggt gggggagggg gcgacccgaa caacagtgca gtggtatcg
                                                                     780
agattgggga gaggagcgag tccaaggaga aggtcatgag tttcttttta ctcgtgttga
                                                                      840
ataataacaa taacaataac aatatggaaa ccaccgcaaa cttggagaaa agttgtaagc
                                                                      900
acagtaaaga gaagetteet tetgagteae ttgagtggtt geegttetgg eeetgeaeee
                                                                      960
tctgtgcttt gggacggcgt ccaacccgca ttcatgtcag gagtgagtcg cacgtggctt
                                                                     1020
tgtggtcatg gcgacttaat ctgcctggac ggtggctccg tctccctggg cttagacgac
                                                                     1080
cttggcactt ctggagataa gcccatggct cccaggttgt gttcatgtga cgtttccttg
                                                                     1140
tggtaggttc tgggtctgcg ttttgtctag gagtgtcaca ggatggeac tgcctcctqq
                                                                    1200
caggggctgc ccaatgcagt tagcctcctg ctggtgttct ctcttgttgc ttggtgaagg
                                                                     1260
tggccctggt cagcttctcc actgcccagt gaacgacccc tttgtaatga atgagtgggg
                                                                     1320
aggtagtgtg aagcgatgcc aatatcccat ccctgtcaaa ctgcctttac tttttccttc
                                                                     1380
cttccttgct cccacctgtg tggatcctgg tcccttcttg tattcagggc tgtggtctgt
                                                                     1440
tatgacattt acteteagge teaggteetg ettgtttgge eegtgggage eeettettet
                                                                     1500
gccttttgtg ttkttttggt atgtacctac attatttaac tgg
                                                                     1543
<210> 299
<211> 1021
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (248)..(248)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1004)..(1004)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1014)..(1014)
<223> n equals a,t,g, or c
<400> 299
ttcggcagag cccttgcgcg ctcttgaata cctgckttct gtagcgctag ttctcttcaa
                                                                       60
gatttgctta gtgtcatttc atttcggttt cttttctcgc catgtttttc tgtcggaatt
                                                                      120
acggttcgtt ttggttctat gtactctcta aaatgttatc gtttttcatt tgtctactaa
                                                                      180
ttttcgtgca tttgttacta ctgagtttd taatatctga ctggcctccg cccacgggct
                                                                     240
ctgcaganca taaaatactc aggctgatgg tagtgcagag actctccctc cttgatcagc
                                                                      300
```

```
360
gcaaacgttg gtctgaggct tgagggatgg agcaacattt tcttggctgt gtgaagcggg
                                                                     420
cttgggattc cgcagaggtg gcgccagagc cccagcctcc acctattgtg agttcagaag
atcgtgggcc gtggcctctt cctttgtatc cagtactagg agagtactca ctggacagct
                                                                      480
gtgatttggg actgctttcc agcccttgct ggcggctgcc cggagtctac tggcaaaacg
                                                                      540
                                                                      600
gactetetee tggagteeag ageacettgg aaceaagtae agegaageee actgagttea
gttggccggg gacacagaag cagaagarg cacccgtaga akargtgggg caggcagarg
                                                                      660
aacccgacag actcaggctc crgcagcttc cctggagcag tcctctccat ccytgggaca
                                                                      720
gacagcagga caccgaggtc tgtgacagcg ggtgcctttt ggaacgccgc catcctcctg
                                                                      780
ccctccagcc gtggcgccac ctcccgggtt tctcagactg cctggagtgg attttcgcg
                                                                     840
                                                                      900
ttggttttgc cgcgttctct gtactctggg cgtgctgttc acggatctgt ggagctaagc
agccttagat agcagcagaa ggctttttgg attctcctcc ttgaaaagat tctcagttac
                                                                      960
caaacgtctc cacctagaaa ataaaaatac attaagatgt tganaaaaaa aaanaaaaaa
                                                                     1020
                                                                     1021
<210> 300
<211> 727
<212> DNA
<213> Homo sapiens
<400> 300
gctggtatct ccagtgtttg ggtttagctc caacttacag gttaggacca gcttttctgc
                                                                       60
                                                                     120
aggtgttgac cagcaatttc ctgcggcatt tacttcttga taacaagagt gagægatag
                                                                      180
agacagggca gatagacact taagagtaaa atgtattaac acaaaggctc tggccgcccc
                                                                      240
cctacaaagg aggccatgga accgatggaa ctgatggagg aaatgctggg actgtgggtc
agtgctgaca cacccatggc catacgtttg gtcttcttgg ccttggctgg gctggtggat
                                                                      300
gggaagccag tatggatcac cttgtggatg gatgcaaaga gaccaaactt ggcgggcact
                                                                      360
                                                                      420
ggaagtacct ggggaagcag gagagactca cactgctgtc atggccccac agcctggagc
                                                                      480
ctcccctgcc tcctctgcct cttcagagcc cagcagaaag acagagaaag aagcctcctt
ggggttccat tacccacact ccaaggtgga aatctttcag atggttagb gatgaaggta
                                                                     540
gtagaaggca aggatgattg ggagtagaag gaagagtgac aggctagcat gagctgtgca
                                                                      600
                                                                      660
gcagcaagat tccatatgag caaagttcag aaagtgrgmm aaaaggacca agttggatct
                                                                      720
cctcctaacc ctgacctgca tgatatgggt gtgagaagct tcaactgaga aagctgctga
                                                                      727
gaaagta
<210> 301
<211> 2801
<212> DNA
<213> Homo sapiens
<400> 301
ccacgcgtcc gcgagcccgg ggcgggtgga cgcggactcg aacgcagttg cttcgggacc
                                                                       60
caggacccc tcgggcccga cccgccagga aagactgagg ccgcggctg ccccgcccgg
                                                                     120
ctccctgcgc cgccgccgcc tcccgggaca gaagatgtgc tccagggtcc ctctgctgct
                                                                      180
gccgctgctc ctgctactgg ccctggggcc tggggtgcag ggctgcccat ccggctgcca
                                                                      240
gtgcagccag ccacagacag tcttctgcac tgcccgccag gggaccacgg tgccccgaga
                                                                      300
cgtgccaccc gacacggtgg ggctgtacgt ctttgagaac ggcatcacca tgctcgacgc
                                                                      360
aggcagcttt gccggcctgc cgggcctgca gctcctggac ctgtcacaga accagatcgc
                                                                      420
cagcctgccc agcggggtct tccagccact cgccaacctc agcaacctgg acctgacggc
                                                                      480
                                                                     540
caacaggctg catgaaatca ccaatgagac cttccgtggc ctcggcgcc tcgagcgcct
ctacctgggc aagaaccgca tccgccacat ccagcctggt gccttcgaca cgctcgaccg
                                                                      600
cctcctggag ctcaagctgc aggacaacga gctgcgggca ctgccccgc tgcgcctgcc
                                                                      660
                                                                      720
ecgectgetg etgetggace teagecacaa cageeteetg geeetggage eeggeateet
                                                                      780
ggacactgcc aacgtggagg cgctgcggct ggctggtctg gggctgcagc agctggacga
                                                                      840
ggggctcttc agccgcttgc gcaacctcca cgacctggat gtgtccgaca accagctgga
                                                                      900
gcgagtgcca cctgtgatcc gaggcctccg gggcctgacg cgcctgcggc tggccggcaa
                                                                     960
caccegeatt geceagetge ggeeegagga cetgge@ge etggetgeee tgeaggaget
ggatgtgage aacetaagee tgeaggeeet geetggegae etetegggee tetteeeeeg
                                                                     1020
```

```
1080
cctgcggctg ctggcagctg cccgcaaccc cttcaactgc gtgtgccccc tgagctggtt
                                                                   1140
tggcccctgg gtgcgcgaga gccacgtcac actggccagc cctgaggaga cgcgctgcca
                                                                   1200
cttcccgccc aagaacgctg gccggctgct cctggagctt gactacgccg actttggctg
                                                                   1260
cccagccacc accaccacag ccacagtgcc caccacgagg cccgtggtgc gggagcccac
                                                                   1320
agecttgtct tctagcttgg ctcctacctg gcttagcccc acagcgccgg ccactgaggc
                                                                   1380
ccccagcccg ccctccactg ccccaccgac tgtagggcct gtcccccagc cccaggactg
                                                                   1440
cccaccgtcc acctgcctca atgggggcac atgccacctg gggacacggc accacctggc
gtgcttgtgc cccgaaggct tcacgggcct gtactgtgag agccagatgg ggcaggggac
                                                                   1500
acggcccagc cctacaccag tcacgccgag gccaccacgg tccctgaccc tgggcatcga
                                                                  1560
                                                                   1620
gccggtgagc cccacctccc tgcgcgtggg gctgcagcgc tacctccagg ggagctccgt
                                                                   1680
gcagetcagg agectccgte teacetateg caacetateg ggecetgata ageggetggt
gacgetgega etgeetgeet egetegetga gtacaeggte acceagetge ggeecaaege
                                                                   1740
cacttactcc gtctgtgtca tgcctttggg gcccgggcgg gtgccggagg gcgaggaggc
                                                                   1800
ctgcggggag gcccatacac ccccagccgt ccactccaac cacgccccag tcacccaggc
                                                                   1860
                                                                   1920
ccgcgagggc aacctgccgc tcctcattgc gcccgccctg gccgcggtgc tcctggccgc
                                                                  1980
gctggctgcg gtgggggcag cctactgtgt gcggcggggg cgggccatgg cagcagggc
tcaggacaaa gggcaggtgg ggccaggggc tgggcccctg gaactggagg gagtgaaggt
                                                                   2040
                                                                   2100
ccccttggag ccaggcccga aggcaacaga ggcggtggag aggccctgcc cagcgggtct
                                                                   2160
gccctacatc taagccagag agagacaggg cagctgggcc gggtttcagc cagtgagatg
                                                                   2220
ccagcccctt cctgctgcca caccacgtaa gttctcagtc ccaacctcgg ggatgtgtgc
                                                                   2280
                                                                   2340
agacaggget gtgtgaccac agetgggece tgtteeetet ggaceteggt eteeteatet
                                                                  2400
gtgagatgct gtggcccagc tgacgagccc taacgtcccc agaaccgagt gctatgagg
acagtgtccg ccctgccctc cgcaacgtgc agtccctggg cacggcgggc ctgccatgtg
                                                                   2460
ctggtaacgc atgcctgggc cctgctgggc tctcccactc caggcggacc ctgggggcca
                                                                   2520
gtgaaggaag ctcccggaaa gagcagaggg agagcgggta ggcggctgtg tgactctagt
                                                                   2580
                                                                   2640
cttggcccca ggaagcgaag gaacaaaaga aactggaaag gaagatgctt taggaacatg
                                                                   2700
ttttgctttt tttaaatata tatatattta taagagatcc tttcccattt attctgggaa
                                                                   2760
gatgtttttc aaactcagag acaaggactt tggtttttgt aagacaaacg atgatatgaa
                                                                  2801
ggccttttgt aagaaaaaaa aaaaaaaaa a
<210> 302
<211> 1341
<212> DNA
<213> Homo sapiens
<400> 302
caggaattcg gcacgagagt ctgtggtcct ctgtatctca actttttcat cttaaaaaaa
                                                                     60
caaatagggt tgtgtgtg gctggtggtc ataaggtcct ttctggctct aataacctga
                                                                    120
                                                                    180
gcttctgtta tgaægctggg acccttagag cctcaggatg atcctctgtt tgtttgtgaa
gccccaatca ggtgctaagc accatagtgg cacttagctg aagctcctct gtaactcctg
                                                                    240
tgggccctgc cttgcccacc cccgacagct gctgcagtgc tcctgagcag cacaggcctg
                                                                    300
atggagette tggagaagat getggeeete acettggeaa aggegatte teccaggaet
                                                                   360
                                                                    420
gcactcctct gctctgcctg gctgctcact gcctccttct ctgcccagca gcacaagggc
                                                                    480
agtttgcagg ttcaccagac actctctgtg gaaatggacc aagtattgaa ggctctcagc
tttccaaaga aaaaggctgc actactctca gctgccatct tatgcttcct gcggacagcc
                                                                    540
ctgcgacaaa gcttttcctc tgccctggta gccctggtgc cctcaggggc ccagccactg
                                                                    600
ccagccacca aggacactgt cctagctcca ctgcgaatgt cgcaagtccg gtccctggtc
                                                                    660
                                                                    720
attgggctgc agaacctcct ggtgcagaag gaccctctat tgtcccaggc ctgtgttggc
tgcctggagg ccttgcttga ctacctggat gcccggagcccagacattgc tctccacgtg
                                                                   780
                                                                    840
gcctcccagc cttggaatcg gtttttgctg tttaccctct tggatgctgg agagaattcc
                                                                    900
ttcctcagac ctgagatttt gaggctcatg accetgttta tgcggtaccg gagtagcagt
                                                                    960
gtcctctctc atgaagaggt gggtgatgtt ctgcaaggtg tggctttggc tgacctgtct
accetetega acaccacact ecaggeeetg catggettet tecageaget ecagageatg
                                                                   1020
                                                                   1080
ggacacetgg etgaceacag catggeecag accetgeagg ceteettgga gggeetteee
                                                                   1140
cctagcacct cctcaggcca gccaccctg caggacatgc tctgcctggg aggggtggct
```

gtatccctgt cccacatcag aaactgatcc tcaggacttg aaggcccaga agtggagaga

1200

```
gaatgagacc tggagacaaa gggcataatt gttggggaaa tggatgacag ctgaagctat
                                                                   1260
                                                                   1320
tcatatggag ccatatactc tattgttgaa atagaataag gaaataaaat gatacactca
                                                                   1 314
cataaaaaaa aaaaaaaaa a
<210> 303
<211> 839
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<400> 303
ngaacccaga agatgctgcc tctcctgatc atctgtctcc tgcctgccat tgaagggaag
                                                                     60
aactgcctcc gctgctggcc agaactgtct gcctgatag actatgacct gcagatcctc
                                                                   120
                                                                    180
tgggtgaccc cagggccacc cacagaactt tctcaaagta ttcactcctt gttcctagag
                                                                    240
gataataatt ttctcaaacc ctggtacctt gatcgtgacc atttggaaga agaaacagcc
aaattottoa otoaagtaca ooaagooatt aaaacgttao gagatgataa aacagtactt
                                                                    300
ctggaagaga tctacacgca caagaatctc tttactgaga ggctgaataa gatatctgat
                                                                    360
gggctgaagg agaagggagc cccaccctc tccatgaatg ccttcccggc tccatctcct
                                                                    420
acttgcaccc cagaacccct tggctctgtc tgcctcccca gcacctcagt ttctctacct
                                                                    480
tctcaccctc cctggcagcc tgcaatgagt cctgtgccag gaaccggcgg acctccctgt
                                                                    540
gggctgtgag tctcagcagt gctctactcc tggccatagc tggagatgtt tcttttactg
                                                                    600
gcaaaggaag aaggaggcag taaaggaaca gggcagcccg catgtcttcc agaagtgaac
                                                                    660
                                                                   720
agaggccgca gctaccaccg tcacaaagtt cactcatctc tgggtcccgg tgaccccatc
                                                                    780
cccccatacc ctccatcctg ggtcctgggg ccccaaagct ctgaggccta ggagactgcg
                                                                    839
ctgtctcgtg gtttgcctac tcctacacct ttgtaaagag tctcttcatt aaaacccct
<210> 304
<211> 1022
<212> DNA
<213> Homo sapiens
<400> 304
cgctcctgcc gccgggaccc tcgacctcc cagagcagcc ggctgccgcc ccgggaagat
                                                                     60
ggcgaggagg agccgccacc gcctcctcct gctgctgctg cgctacctgg tggtcgccct
                                                                    120
gggctatcat aaggcctatg ggttttctgc cccaaaagac caacaagtag tcacagcagt
                                                                    180
agwgtaccaa gaggctattt tagcctgcaa aaccccaaag aagactgttt sctccagatt
                                                                   240
agagtggaag aaactgggtc ggagtgtctc ctttgtctac tatcaacaga ctcttcaagg
                                                                    300
tgattttaaa aatcgagctg agatgataga tttcaatatc cggatcaaaa atgtgacaag
                                                                    360
aagtgatgcg gggaaatatc gttgtgaagt tagtgcccca tctgagcaag gccaaaacct
                                                                    420
ggaagaggat acagtcactc tggaagtatt agtggctcca gcagttccat catgtgaagt
                                                                    480
                                                                    540
accetettet getetgagtg gaactgtggt agagetaega tgteaagaea aagaagggaa
tccagctcct gaatacacat ggtttaagga tggcatccgt ttgctagaaa atcccagact
                                                                    600
tggctcccaa agcaccaaca gctcatacac aatgaataca aaaactggaa ctcgcaatt
                                                                   660
taatactgtt tccaaactgg acactggaga atattcctgt gaagcccgca attctgttgg
                                                                    720
                                                                    780
atatcgcagg tgtcctggga aacgaatgca agtagatgat ctcaacataa gtggcatcat
840
                                                                    900
tcagaggaaa ggctacttt caaaagaaac ctccttccag aagagtaatt cttcatctaa
                                                                    960
agccacgaca atgagtgaaa atgatttcaa gcacacaaaa tcctttataa tttaaagact
ccactttaga gatacaccaa agccaccgtt gttacacaag ttattaaact attataaaac
                                                                   1020
tc
                                                                  1022
<210> 305
```

<211> 1028

```
<212> DNA
<213> Homo sapiens
<400> 305
                                                                     60
gcatgatcct gtggaacaca gtttgggatc atagatgtga attaagacac caccgagata
cgggctgtga ggttcatacc gtgctgatag cactcgtggt gtctgtgaaa tgtgggtaag
                                                                    120
acattcaaac ctggttttga tactggaaac tcttccttta aaactgtgac catgatttca
                                                                    180
ttcagcccct ccacacccct atgtctgcct tgtttcagag tgagttttct atggagcctg
                                                                    240
tggccctttt gcagcccacc tggtggcttc ttaatgtaac tcttcccctg gtcgcctgga
                                                                    300
                                                                   360
gtggaccact catctgcagg cctctcctgc atggggaggg taggcagga gcagcatgtc
tgcaggggtg aacctttgct cttctgtcag gcgaggccca ggctgcacca gccacctgcc
                                                                    420
acatggtgac agtgccacgg gccctgcgta tggcccctgc aaccgtgctc tggcgggcac
                                                                    480
acctggctgc tgcaggccaa ggccgctgtt cagtgaagag tcccatgttt agtatggact
                                                                    540
                                                                    600
aaagtcccat gtttagccay tgccccagtc tcccgtgacc ccagaaacca ggtcactgga
                                                                    660
ccacagtgcc agatcctcat cacgccggtg agcacctaga agtgagaaca ctgtattcct
                                                                    720
acaatgtaca cttggatatt tctccttatt tagtttctag tgaaacaaat caagtaagga
actatcttta gtttagatgg aattatttgt ttttaattgt tgcgtattc atctatatag
                                                                   780
                                                                    840
ctaatatttc aagataagta atgaacaaaa cctgtctaaa ccttttgttt ccaatgaatg
aaagtcatgc actttattta taggctctat gttttggctt ctgcagtact tttattatct
                                                                    900
atacataatt tggccaaaaa taagaaattg gaaagaatga aatgtttagt ttatagtaga
                                                                    960
agaaagatga tgacactaag ttgtgaaaat atgttgtgat ttttatgaaa taaactcacg
                                                                   1020
                                                                   1028
gcacgtag
<210> 306
<211> 450
<212> DNA
<213> Homo sapiens
<400> 306
                                                                    60
tttttttact cgaaaaaatg tttaatagaa tttaaaattt tacttcagg gaatttggaa
                                                                    120
gttcaatcat tctcaaagag gctgtaagga tgattaaaat cctgaaggaa gccattgaag
aaactteett etgetette tggaggatet etttteaatt atetatteat catattte
                                                                    180
ttatcttctg tgcacaattg acaactcttc tttacagcac attcctctty attcccatct
                                                                    240
cttggtttct gattgttcct ggggctgtgg ataaaaccat tctctgagaa gctgataagc
                                                                    300
aattggatga gaaagargga gargaaaact ggcaggarga tctggsccca tgcccgcagc
                                                                    360
cagcacatct ctcttcagac ctggtgaccc cagccactgg gaacctggca ggcaccagct
                                                                    420
                                                                    450
acagtgttgg acactgctcg tgccgaattc
<210> 307
<211> 531
<212> DNA
<213> Homo sapiens
<400> 307
                                                                     60
gttctaattc actgcccaca gccctgctga taaaagcaaa gctcatctct gccgtgctgc
agggaaccet attteettee cetgeagete agecacetee teeteteagg tetgeeagee
                                                                    120
atgaaacttc tttacctgtt tcttgccatc cttctggcca tagaagaacc agtgatatca
                                                                    180
ggcaaacgcc acatccttcg atgcatgggt aacagtggaa tttgtagggc ctcttgcaaa
                                                                    240
                                                                    300
aagaacgaac agccctacct ctattgcaga aattgtcagt cctgctgcct ccagtcctac
atgaggataa gcatttctgg caaagaggaa aataccact ggtcttatga gaagcagtgg
                                                                   360
                                                                    420
ccaagactac cttgagtgct ggtgattacc attctcaagc tctctgggca cagagacctg
                                                                    480
531
aaamaaaaaa aaaaaaama maawaamwaa amawaaaaaa aaaaactcga g
<210> 308
<211> 808
```

<212> DNA

## <213> Homo sapiens

```
<400> 308
                                                                    60
tqcaqqaatt cqgcacqaqa ttacaacaca tcaqaacaaa atqttatqqa ctaccatqqa
                                                                   120
gcagaaatcg tgagccttcg tttgctgtca ctagtaaaag aagaatttct ttttctcagc
                                                                  180
cccaacctag attcacatgg actgaaatgt gcatctttc ctcatgggct ggttatggtt
ggagttgctg ggactgtcca tcgaggaaac acttgtttgg gcatttttga acaaattttt
                                                                   240
ggactcatcc gctgcccttt tgtggagaat acttggaaaa tcaaatttat caacctgaaa
                                                                   300
attatgggag agagttccct tgctcctgga acattaccga aaccatctgt taaatttgaa
                                                                   360
                                                                   420
caaaqtgatc tagaggcctt ttataatgta atcactgtat gtggtaccaa tgaagtacga
                                                                   480
cataatgtaa agcaggcttc ggatagtgga actggggacc aagtttgagg tagtggaaat
gagacattgc tgaacaaaag agaactgggt ttacctgacc ctctaaagcg ctaagtactg
                                                                   540
tcagcctgaa aaaaatcttc tatacagaaa &cttccaaa tactatatca gtaatgtctg
                                                                  600
                                                                   660
aatgatttca gatgtgaaaa ttgacatatt ttagttgaaa tacctttctg gactacagac
                                                                   720
ttacatatca tgtgaatact tacctatttc tacccgagtt gcagcaagta ttctgaaagc
780
aaaaaaaaa aaaaaaaaa aaaaaaac
                                                                   808
<210> 309
<211> 1898
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1398)..(1398)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
\langle 222 \rangle (1428)..(1428)
<223> n equals a,t,g, or c
<400> 309
ggcacgaggt ctccatggcg ttagaagtct tgatgctcct cgctgtcttg atttggaccg
                                                                    60
qtgctqaqaa cctccatqtg aaaataagtt gctctctgga ctggttgatg gtctcagtta
                                                                   120
tcccagttqc agaaaqcaqa aatctgtata tatttqcqqa tqaattacat cqqqaatqq
                                                                  180
gctgccctgc aaatcggata catacatatg tatatgagtt tatatatctt gttcgtgatt
                                                                   240
                                                                   300
gtggcatcag gacaagggta gtttctgagg aaactctcct ttttcaaacc gagctgtact
ttaccccaag gaatatagat catgaccctc aggaaatcca tttggagtgt tccacctcta
                                                                   360
ggaaatcagt gtggcttaca ccagtttcta ctgagaatga aataaaattg gatcctagtc
                                                                   420
cttttattgc tgactttcag acaacagcag aagagttagg attattatct tctagtccaa
                                                                   480
acttgctctg agctaaagga gaaatggaaa cttgaagctg gtgttatgta ttttgcagga
                                                                   540
                                                                  600
aaacagtttc atttttcat agcaaaaata tagttggtgt atatctccc ttaagtctct
                                                                   660
ggtttctaaa aaccctactt cagtaaaggt cctgattagt tgattagtga atgtgtattt
ctaaatattt gtattcagta ggggtatggc tgattaattt aacattaact attaggtaat
                                                                   720
tcatattata catttaagtt ctttctgttc tgtgtagaag attcagaaat atgtcttcaa
                                                                   780
                                                                   840
agacaatgac ttgatctaat tgataagaac ctccaataaa tatgttctaa tatttttcag
                                                                   900
gaagaataaa gaatagagag agacatataa atgtgcaaga ggcaaaactt tgagcatagt
gtaaaattta acatattaac tctcacgaaa ggcaaaatcc ttttatgtgc agatacttta
                                                                   960
                                                                 1020
attcatgtag attttcctat taatcagtaa agttgaatcc bacaataat gccatgtgac
                                                                  1080
aacctattta gattattcca gaattaaatt caatttattt tctagagctc aagtaaccac
                                                                  1140
tactttaact gaaatttgat gttaggtttc ccttgttcct ccgaatggtt cttccacact
caaaataatt gaatggttga gttggttaag caaagagtta tcctgccacc taagagcatt
                                                                  1200
1260
                                                                  1320
tctaaatatg taatatatca aaaaatactt ctgatttggt agatttctta tatcaagggt
gagaattgaa ctgtgccatt ggctattcaa tagcttattg aatgtatgtt ttggatgcca
                                                                  1380
```

```
catcctcctq qaaqcaantt ttqccaaqat actqttatt attatttnta attaaaqtqa
                                                                    1440
                                                                     1500
tactattcca ttttcaatta aatgctgtct gtagctgtta acttgtcaga taaagaattt
                                                                     1560
gaccctgtca tagtgaacat ctgtctttac cagttaacat gcagctaaga ggtaatactt
                                                                     1620
ctatgggact tcctaagggt cagaatatgg tacaagtaca ttgcgataaa ttatttaatc
                                                                     1680
ttcttaaaga gtgaaatata tcatgattat cccaatttta cagataagca aacagaggtt
                                                                     1740
aaatcatttg cctgagtcac ataacttgtt ggtgttggtt caagatttaa aatagggcaa
                                                                     1800
tctgccttta gatctgtctc tatactctct ctttgtatat tagccactat actctactgc
ttggaatcat cttaagttgc tgaactttagttctctagaa aacaattgct attcaagcag
                                                                    1860
ttatacaact ctcaataaaa cttaaagttg aaaaaaaa
                                                                     1898
<210> 310
<211> 813
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (16)..(16)
<223> n equals a,t,g, or c
<400> 310
gaatcccccc gggctncaag gaatttcggc aacgagggac tacagtgagg acgaaatcta
                                                                       60
ccgcttcaac agcccctgg acaagaccaa cagccttatc tggaccacga ggaccacaag
                                                                      120
                                                                      180
qaccaccaaa gactcagcct ttcacatcat gtcccacgag agcccaggca tcgagtggct
ctgtctggag aatgccccat gctatgacaatgttccccaa ggcatctttg cccctgaatt
                                                                      240
                                                                      300
cttcttcaaq qtqttqgtqa qcaatagagg agtggacacg agcacctact gcaactacca
                                                                      360
gctcaccttc ctgctgcaca tccacgggct gccactcagt cccaagcggg cccttttcat
                                                                     420
catcatggtg tcagctagcg tgtttgtggg cctggtgatc ttctacatcg ccttctgcct
cctgtggccc ctcgtggtga agggctgcac gatgatccgg tggaagataa acaacctcat
                                                                      480
                                                                      540
tgcctcagaa tcctactaca cctacgcctc catttccgga atctcgagca tgccatctct
                                                                      600
gagacattcc aggatgggct ccatgttcag ctccaggatg acagaggaca gggctgaacc
                                                                      660
caaggaagcc gtggagagac agttgatgac ctgagtgtcc cacctgcccc agcccccagt
tactgtcacg cctctcttat gaggcccatc ttgaagatgc aacctgtcac ccagcccagg
                                                                      720
cctctcttc tgttttgctt gatgtttact tctcgttcag actcaaataa agcctttttt
                                                                      780
                                                                     813
caggaccaaa aaaaaaaaaa aaaaaaactc gag
<210> 311
<211> 703
<212> DNA
<213> Homo sapiens
<400> 311
gaattcggca cgagtgcgcg ggcaccacgg cggtttttcg acgctggcgg tggacgcagg
                                                                       60
                                                                      120
cagcatggac cacggttgct gggcggatgg ggagcgtcta tggtcagttg ccttagaagt
ggtgagatgg gaagctgcag ttggagacc ctggaggatg cctgacaagg ggatgtctga
                                                                      180
                                                                      240
cacatgattg gagctctttt tgaaatgttt cttgcccttc ctggagcaga ggagccatta
                                                                      300
tttatgcagg tacatcgaag tcttttgacc tccatacagt gattatgctt gtcatcgctg
                                                                     360
gtggtatcct ggcggccttg ctcctgctga tagttgtcgt gctctgtctt tacttaaaa
tacacaacgc gctaaaagct gcaaaggaac ctgaagctgt ggctgtaaaa aatcacaacc
                                                                      420
cagacaaggt gtggtgggcc aagaacagcc aggccaaaac cattgccacg gagtcttgtc
                                                                      480
                                                                      540
ctgccctgca gtgctgtgaa ggatatagaa tgtgtgccag ttttgattcc ctgccacctt
                                                                      600
gctgttgcga cataaatgæg ggcctctgag ttaggaaagg tgggcacaaa aatcttcatg
agcaatactt cttagtagat tgttttgtta ttcaaatcaa gttctagtgt ttttatgtga
                                                                      660
                                                                      703
gattatataa tttacagtgt tgttttatat acttttgaat aaa
<210> 312
```

<211> 848

```
<212> DNA
<213> Homo sapiens
<400> 312
ggcacgagca ctactgtaag agctggtcag tgaatgtggt tgcagcatgg cctttgggca
                                                                       60
agaagtaacc catttaacta aaaccagctg gttggcccca ctcagattta tcaaagggtt
                                                                      120
actgggtccc tgggggtgga tattgcttat attagactta gaatagcata ctgttttaat
                                                                      180
attatatgaa ctaaaatgt totttaaaaa aagagtggto tgttaatgga tttatgtagt
                                                                      240
ggtcaagaat ttagacttca gagtcaaata aacctatatc aqtcctagtc ctacagttta
                                                                      300
ctaattgtga gatgtcaagc aagtttttga actcctctaa gcctctgttt tcttatctat
                                                                      360
aaattaataa atgaatgaat cgggttgagt gaatatttag taaattcttagtacatacta
                                                                     420
gttatttgta actgtgagac tggttttttg gtatggtttt cacatttggg agtagaaata
                                                                      480
ccacttccta aagtctgttt tatctcaaat tctctatcca ggcatagtgt aaagtgaaat
                                                                      540
acctagattt cttgattaat atacagataa tggccagacg ccatggctaa aacctgtgac
                                                                      600
gctagcactt cggaaggctg aggcgggcgg atcacttgag gtcaggagtt ggagaccagc
                                                                      660
ctggcaaaca tggcgaaacc ctgtctctac taaaaataca aaaattagct ggatgtggtg
                                                                      720
gcaggtgtct gtaatcccag ctacttagga ggctgagaca ggagaactcc ttgagaattg
                                                                      780
ctccactgcc ctccagcctg ggcaacagag tgagacactt cat&caaaa aaaaaaaaa
                                                                     840
aaaaaaaa
                                                                      848
<210> 313
<211> 1061
<212> DNA
<213> Homo sapiens
<400> 313
aattcggcac gagagaagga aatacatcaa aatgcccaca ttggttatct gtagaggata
                                                                       60
gaatgaaaga tggctttatt ctcttgtttg ctcttattaa agcaatcaga tggtgcttct
                                                                      120
cctgtactca gagccctggc tgcttcctgc ctggcctctc ctgcgggctg ctgtggaacc
                                                                      180
agaaaagcct taaacggaaa tgtgggagag aaggttggat tcactttcat gtctttccag
                                                                      240
ggttgtgacc cctcaagtcc tggttgcctt tgctgttctc tataccttc aaacagccag
                                                                     300
ctcgtcttta tttcttttt agttttgtcg gggttggctt gatagatgtt agtccatcat
                                                                      360
agccagatgt gtctagcctt gtcttttgaa tgcaagattt aggatgtggg tacttagctg
                                                                      420
ttagtggaca tcagagtcac tagtcaggat gaaagagttc ttggctttaa ctcccagaaa
                                                                      480
ttctggtaac gtcatgtata gtgacggccg catgtctaac aggtggccag gtaagtcttt
                                                                      540
tggggtggtc tgtgaatcac agtttgggag acattgactt ttagggagtt tgttctgaat
                                                                      600
tcactagata atagagatat aatacagagc tttgaaagct ggtgtcttga tgacagagcc
                                                                      660
gtggcaatgg ggagggttga ggaggtggct gttgggc&g tctcctggtg agagttgaaa
                                                                     720
gggcctgaac tcaagcagag gcctcagaac cgaaaggtgg tggaaggatg cagcaagagg
                                                                      780
cgccacacag gagtactctg cgccctggca gggtctgaat acacgtggga gtggtgagag
                                                                      840
ggagaacttt aagtccaggt tttgtgcctc agtgacttag tgtggccata tcattagaaa
                                                                      900
tgtgttgagg ccgggcacag tggctcatgt ctgtaatccc agcactttga gaggctgagg
                                                                      960
caggaggatg gcttgaggcc aggagtttaa aaccagcctg gacaacatag tgagagcctg
                                                                     1020
tctctacaaa aaaaaaaaa aaaaactcga gggggggccc g
                                                                     1061
<210> 314
<211> 818
<212> DNA
<213> Homo sapiens
<400> 314
aaaacttgag tatgttgagg gaaggaatat atatatct gggagagaat ggatacgttt
                                                                       60
tgtttttctg aaatggaatt agaaagatgt tcagttgtct tgtgcattct tgcaaacctt
                                                                      120
gcagttttga gagccctgtt tctgccttgt atcattttcc actgtgtatc kgattctagg
                                                                      180
agcgtgaaca gggagacaaa ggtgaagttt gtgcacacct ctgtccatgg ggtgggtcat
                                                                      240
agctttgtgc agtcmgcttt caaggctttt gmccttgttc cycctgaggc tgttcctgaa
                                                                      300
cagaaagatc cggatcctga gtttccaaca gtgaaatacc cgaatcccga agaggggaaa
                                                                      360
```

```
ggtgtcttgg taacctaatt tttttttaaa tatgaaatc tgcttttata ttcaaaacta
                                                                      420
ttactgtcaa gtaaaataca tttttatgtg ttttcattgt gctgaagaaa aactaatttc
                                                                       480
agcatggaaa tatgtatgtt tggctgggtg cagcgtctca tgtctgtaat cccagcactt
                                                                       540
tgggagacca aggcaggcag atcacttgag gtcaggtgtt cgagaacagc ctggccaaca
                                                                     600
tggcaaaacc ctgtctctac taaaaataca aaaattagct gggtgtggtg gtacatgcct
                                                                       660
gtaatcccag ccacttggga ggctgaggca ctagaattgt ttgaacctga gagatggagg
                                                                       720
ttgcagtgag ctgagattgc accactgcac tccagcctgg gtgacagggt gacagagcga
                                                                      780
gactctgtct caaaaaaaaa aaaaaaaaaaa aactcgag
                                                                      818
<210> 315
<211> 534
<212> DNA
<213> Homo sapiens
<400> 315
agcccttcgt ggccggcttt gccgtcatca ccgcggccca ggacgtgtgg atgctgctgg
                                                                        60
ggggccgcct cctcaccggc ctggcctgcg gtgttgcctc cctagtggcc ccggtgagtg
                                                                     120
tecegtetet egagtgteet gtetegegge etgagacega gggggagtgg gacaaacege
                                                                      180
tececaggee tgggggegeg geteecettg gegggaeett etgggtgeea ggettgaagt
                                                                      240
ccctgcgtta tctcgcggtc cctcccgtcg accctgggaa ggatcctact gttctctca
                                                                      300
ttttacactg aggtcatgac atgcagtctc ggaaaggtga agtcctttgc ccaggcgagg
                                                                      360
tccacagcta gtcagagggg aagcagttgc aggaacccag ggttgtccca cttagccgtg
                                                                      420
cccytctttt gctctgcaaa ctgcggatga tccacaggag cccactccct acattttggt
                                                                      480
tttcatccct ggcttcgggg tcaatgactg caattagcag gaagttcctg tcct
                                                                     534
<210> 316
<211> 1032
<212> DNA
<213> Homo sapiens
<400> 316
tgcaggaatt cggcacgagg cgggccggga cgggcatggc cctgctgctg tgcctggtgt
                                                                       60
gcctgacggc ggcgctggcc cacggctgtc tgcactgcca cagcaacttc tccaagaagt
                                                                      120
tctccttcta ccgccaccat gtgaadtca agtcctggtg ggtgggcgac atccccgtgt
                                                                      180
caggggcgct gctcaccgac tggagcgacg acacgatgaa ggagctgcac ctggccatcc
                                                                      240
ccgccaagat cacccgggag aagctggacc aagtggcgac agcagtgtac cagatgatgg
                                                                      300
atcagctgta ccaggggaag atgtacttcc ccgggtattt ccccaacgag ctgcgamca
                                                                     360
tcttccggga gcaggtgcac ctcatccaga acgccatcat cgaaagccgc atcgactgtc
                                                                      420
agcaccgctg tggtaagcaa ggctccgtcc aggctgaggg gcgtgccggt ggcagctcgg
                                                                      480
ggccctggag gctgagggga gccctggcgg ctcttgtacg tgtttcaggc atcttccagt
                                                                      540
acgagaccat ctcctgcaac aactgcacag actcgcacgt cgcctgcttt ggctataact
                                                                      600
gcgagtcctc ggcgcagtgg aagtcagctg tccagggcct cctgaactac ataaataact
                                                                      660
ggcacaaaca ggacacgagc atgagcctgg tatcgccagc cttaaggtgt ctggagcccc
                                                                      720
cacacttggc caacctgacc ttggaagatg ctgctgagtg tctcaagcag æctgacagc
                                                                     780
agetgggeet geeceaggge aaegtggggg eggagaetea getggaeage eeetgeetgt
                                                                      840
cactetggag etgggetget getgeeteag gaceceetet eegaeeeegg acagagetga
                                                                      900
gctggccagg gccaggaggg cgggagggag ggaatggggg tgggctgtgc gcagcatcag
                                                                      960
cgcctgggca ggtccgcaga gctgcgggat gtgattaaag tccctgatgt ttaaaaaaaa
                                                                     1020
aaaaaaaaa ac
                                                                     1032
<210> 317
<211> 978
<212> DNA
<213> Homo sapiens
<400> 317
gctcacaaga taatatetet tgccttttte eteteggagt gtteetgegg ttgtgatet
                                                                      60
```

```
ctcttagctc tggtagcctg ttcaggcctt aaggtatctg ttcggtatta tgtggtcaag
                                                                      120
                                                                      180
tagctgggac cacaggatca caacaccacg tctggctaat ttttttttt ttttttt
ttttttttt gtagagatgg ggtttcgcta tgttggccag gctggtctca aactcctggc
                                                                      240
ctcaagcaat cttccagcct tggcctccca aagtgctggg attacaggtg tgagccacca
                                                                     300
                                                                      360
cktctggctt ggagggctta ttaaaacmcc gattcttagc ctcaccccca gagtttctgg
                                                                      420
ttagtaggtc ttggcagggc tggagaattk gaatttccac accttccttg gtgatgtgtt
                                                                     480
gttggtagtt cagggagtac atgtgagagg aaccgtttag atagkaaaa ctgcaaacct
                                                                      540
gaagaagaat agaagaatcc ttattctgkg ctctcttaga tttagtttcc tcatctatga
tcaataacta ttcatttctt cctcatttcc aataacgatt tgctgctttt aagagcaaga
                                                                      600
                                                                      660
gatcactttt ccttcatgtt gttttgctag tggcaaatca gaaatggttt cgccagtatt
cactgatctt gtaatcactc tcggaatcca gctgcatctc tagtgtagag ttttgggtca
                                                                      720
                                                                      780
acaaqaataa wrmwgagctt aaagaattgg actcagactc ttgaagtcag gggttgatga
                                                                      840
gaaggtggct ctaatctatt cattcaacaa cttcctattg agcacctgct atgtgccagg
tgctgttcta gccactaaga tagagcaggt aataacatagggccattgtc cttatggaat
                                                                     900
                                                                      960
ttgtattgta gtggggtgaa taaaaaaggg cagtctaggt ggggcccgga aaaaaaaaa
                                                                      978
aaaaaaaaa aaactcga
<210> 318
<211> 1466
<212> DNA
<213> Homo sapiens
<400> 318
ggcacgagtg cctcaaagac tattatttgg gaggatctag tgcaaatgtt agtaatgtgg
                                                                       60
atattgtgta gtgtcccagg atattaatgt ttttagcctc ttggctttta ttctgtattg
                                                                      120
                                                                      180
ttgccccaaa agatgatgct cacttatctt tcatccagtg taaggatatc tggaaagaca
                                                                     240
acagaaagta tagctgtttt catttcaaaa gtgatcagctgcttgagcta gcaagcaagg
                                                                      300
cttgcactag cttccaggcg cagtcacgca gtttcacagc aggcgcggtt ccctcggagc
                                                                      360
acccagaget geeetgeggt agteageagt tgtgetgtgg etgeactgee aggetgggtg
                                                                      420
gcargtggat cggagccagc agatgtggct caggaagtgc cttcttggcc tctccttaat
                                                                      480
ctctttcaga stctgtgggc ccttgattgc actgtgggtt gtttcagact ccagtattag
gagactgaac cccttggtgg ttttttggtg tgtgtgtgct gagmtgggtt gaggacatgt
                                                                      540
                                                                      600
taagcaggtg gggtgcytcc cctgggtttg ctccgggtgg tacctgtggt gtggggtggt
tctgagtagt tctggcccca ctgctggagt atctgcccay tcagtttgtg agatggcagg
                                                                     660
gcttcatcct ggtctggtgc ctcattttct tctttagcag tgggcttaga accaatgcag
                                                                      720
                                                                      780
attcccaagt taagtatttt ttctgtagct taattattac aggcttctgg tacctaagcc
ctttcttact ttctgttctg aggggaagag aagataatgt tgtttctccg cccccccgg
                                                                      804
                                                                      900
agtggcccca ggaccttgca tggcatttgc agcatttgca gcgtgcttgg gtttgcttta
ctagggtgaa agtgttgcac ccccagcac ccacaaaggc acctctgctc accctccggt
                                                                      960
gaggttetga etggeeetgg gacateaest getecaggat cetatgtgge teateceagg
                                                                     1020
agagatgtgg gagggaaggg gaaaaaagg ttacatttgc tgagtggaat tcatgtagat
                                                                     1080
ctgagttccg cattgattcc taagctgcag agcccttatg ccttggctgt tttgtgaatg
                                                                     1140
                                                                     1200
ttaqtcqqtc ttaacctttt tcaccqagtt agcattgqct gtctcaggag gctcacagct
cctgctcctc ctccagggga gtgcgccctc ctcctctgtc ggtagctgtc aggtgcccct 1260
                                                                     1320
ttcctctgca gcagactgtc ctgggtcctt gcctggcctt ccccttacac gtgagcctgc
                                                                     1380
agcttcattc acagcccctg tgtagaaaga taggcactaa aagcagctga ctggcagccc
tagaaacatg aagggtttca tttatagttt cagtcctttt ccttctttcg agccttaatt
                                                                     1440
                                                                     1466
taaaaaaaa aaaaaaaaa ctogta
<210> 319
<211> 1430
<212> DNA
<213> Homo sapiens
<400> 319
                                                                        60
ggcacgagca cttatgtgtt tggcattctc cgtcatcatt ctggccgggg cgggcagttc
taggagttgg aactcagtcc tggtggaaaa ggaagtcgtg gagggagggc tagggccgg
                                                                     120
```

```
ggggaactgc tctgctgagc ctcttcctca cctgctgctt cctaggacta acctgaaagg
                                                                   180
ctaaggtacc aggctgaagt cagtgctcag aaaaccaatc gtcattcttt ggggtttttt
                                                                   240
                                                                   300
ttcttgaaga gccactttct ctttaccttg ttctagcctg ttggaggtag ggtttctgca
attccaaagg ccgtacacag ccctcacca tcagaccact ttttaaggct cttcgttcat
                                                                  360
                                                                   420
acctagctcg aagattcact tcctcaggaa gccattttag ttacaaatct gggaaaactt
                                                                   480
540
gcatacttac aagtttcttt ttacagtaac cccttgtgga catctaataa atgtcatta
                                                                   600
ttttttagta ctagtttgtt ttcctgaaca ctgtaagatc tgtgactgac gtttgatacc
ttaaagcagt gccatataat aactacccac tatttgttct ttatttctgt cagataaaaa
                                                                   660
                                                                   720
tgttctatgt agtgtctaca gtcattttt ttttaactag aatttagatt tggaagtagt
ttttctatta gttgatttgc atgaaataca aaattaggaa aaggcttatt ccacctcaac
                                                                   780
                                                                   840
ctagttgaac tattaatgat ttttttttt ttttgaggat ttgggctctt tctagataga
aaatcaccct gaacttctag ctttgcattg tgaagtgagc atcatgaaga tgagaaaatg
                                                                   900
                                                                  960
ttgggagatc atttttgcaa agggcataat agtcggcatt cagatatgg ttaactgcag
                                                                  1020
agggaaaatt gcaagctgtc atgttggcct tgttcctctc aaccttctgg taacctaaca
                                                                  1080
agctcctaca ggttgtatgt gaaattgcaa gatgattata tagccctgtt gaatttacaa
ccagatettg ettteaaace attattagee aagggtttga tteeacacet gtgtteatgg
                                                                  1140
attttttggt attagacatt gctgtaactc tgttttcact ttttcatctg ttatcttggc
                                                                  1200
                                                                  1260
tcacttaagg gagaaggtat cagcagccta ggaccacttg gtttctgttt ttatgtttca
tagttcatgg ctgataaaaa ttacctgtcc ttaggccgag tgcagtgcct cacacctgta
                                                                  1320
atcccagcac tttgggaggc cgaggtgagt agatcacctg agtcaggag ttcgagacca
                                                                 1380
                                                                  1430
<210> 320
<211> 1499
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (52)..(52)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (66)..(66)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (84)..(84)
<223> n equals a,t,g, or c
<400> 320
agcttattgc aaagacaaat gtttgaagtg tttgttgaga tttcctgttg tncttcctga
                                                                    60
                                                                  120
ggcagncaca gcataagctc tttnaccctc tacttctcg cacataagct ttcttaccat
                                                                   180
ctatcactgg agtcaggggt gaggggagga ccgcatgaca gttggttaat atacacttat
                                                                   240
tttttggcaa aaacgttttc tctgggacca gaatgatctt gatactgaaa aaatttctag
                                                                   300
tgctagatcc tctttctaag tgtgaaagga cttatctgga atgctccaga atgatcccaa
                                                                   360
gtgttgagct gagagggacc tggcagcaga atctgattat tgaaaagtgg caattgttga
                                                                   420
tttattgaag acagaataat aactcagcag aactgttatg ttgagctgaa cccgacctcc
ttcagccgaa tcatgcaaga atgcctgctg catggctgtt gctgctactt attaaggctt
                                                                   480
ggtgttctgg gcacagtgca atgcatttct acæggttga tcctcacagc aaatgaacaa
                                                                   540
cacaggetta aggaaacaag caacteteaa agteetgeag tgagtagage ttagetgttg
                                                                   600
gtagtcaaca tgccacgcga ttcggragtt gagcctgtct ccagaggtta gagatgttca
                                                                   660
gtttcctctt aaggttctta cgtagatttt tttcatgact ttatctacat cctccttaaa
                                                                   270
                                                                   780
tttacgtttt tagtccttac tggctcttga tatcaccagt tttgttgtta ttagtaattt
```

```
840
ctaactgccc taaatttgtc tgttttaaga ttcaagggat gatacctcag tctgttatct
                                                                      900
ggaatatggt ttacaaatcc attttttctc ttcaaggctt tgaaaacatt gacattgtct
                                                                     960
cctcctaaca tttttatttg tcttgcagc tcctaattta tttaatttat cgttaggaag
acgacttttc tgtcttttga tgattttagc tgcccttctc tagaccttgc tgattccatt
                                                                     1020
                                                                     1080
atctttacca agaattgaaa gtgaaagtgg catttgtcat agaatgccat ggtcttattc
                                                                    1140
caaagtatct taggatggaa caatacaagg cataatatgg ggtcagtgag gtttgttaæ
                                                                     1200
cgagtgaatg accaacaaca ctactgtctg ttcaaaccca gtctgaaggg tgaatcagac
                                                                     1260
cgaccattgg ccgtgagggt ctggactgct cagtattatc tcaaggatat caagggttat
tggaaactgt gtgatcaaag gggctccatg actttatgca gggattcagt agggagccaa
                                                                     1320
gaaggttgag aatagttcag agaccagagt ctaagaccaa tcaagaagaa tggatcaatt
                                                                     1380
agagatatga attctggtgc ttatattttt gtggagctgg ttgtgagata aaaggtcaag
                                                                     1440
cctaccagac tgaaaagtgt atgtgaaagc tctttaaaaa aaaaaaaaa aaactcgag
                                                                     1499
<210> 321
<211> 549
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (474)..(474)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (484)..(484)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (528)..(528)
<223> n equals a,t,g, or c
<400> 321
                                                                       60
gaatteggea gageagatge tteccaetag agaagetaag aagetgtgge ageeacasee
                                                                       120
gggacagggc ctggcctcca gcccagggct ttccctgatg tccagcctca gctgcctctt
cctgcctcat cccacccgca agaggwgctg gggaccarag acagagacac aaactccatt
                                                                       180
tgaatgtgaa ccttggcacc atggagatgc tcagggtgag cccagctgc tctctcatta
                                                                      240
gtatgaattt ccttgtgttt ctgtctctct cctcttccct ggtatcagct gctggkccca
                                                                       300
                                                                       360
ggtttccttc cagagaggag cggggggtgg gtggggtggt gctgattaaa tctgaggaca
tgacattgrg cgagagaagc aaggggagct gstgacctcc ctggatggat aaccatcagg
                                                                       420
aggcggtarc agagtycama taccatcacc ttctcctgca gatgttggtt cagncacttt
                                                                       480
                                                                       540
cctnctacca cagatgggct atgtgtttca aagcagaaga gcagagangg cagagaaccc
                                                                       549
cagctggtt
<210> 322
<211> 904
<212> DNA
<213> Homo sapiens
<400> 322
                                                                        60
ggcacgagat cgtcttgtga caagacttgc tgagaagcac cttaaaattc actgtgagcc
                                                                       120
acattttgtc ttttactgtc tcatcggata gggtagatca atgtccttta ctgtagcaga
                                                                       180
gactetetea tgggeaggae cateatggaa agttetgaet acateaagaa aggegeeaat
 gtctcacctg tgcttggggt caggcagcag gctgtgatgc cggtgcctct ctggttggta
                                                                       240
ctgtggttct gcttcctgtt atatgtagcc tcacgaagga cctttggatt agccaattac
                                                                       300
 atgcccctac cctgagcttc ttccccagct ctttgacttc ctggacattg gtgaatatcc
                                                                       360
```

```
tgaataagca aaagggataa aattcataga aatatggtggcaaaaatata caacttcagc
                                                                    420
ccagttcttt gggtccatgt tggtaaggag tccagttggc aagacaagct gcccaaggaa
                                                                     480
                                                                     540
gtgcctcaga agtctgggtc aaagaggagg gccagatctg ttctgtgaga ccctatgtga
ttgttatatt tttaaataat atataattaa gcaggacaaa ttaaatactc catggctttg
                                                                     600
                                                                     660
gggaaattgt tgctttaaag tcctggaatg gggctgggca cggtggctca tgcctattaa
                                                                     720
tcccagcact ttgggaagcc aaagtgggtg gatcacctga ggtcaggagt tcaagaccag
                                                                     780
cctggccaac atggcaaaac cctgtccatg gtggtgtgcg aggctgaggc aagaaaatcg
                                                                    840
cttgaacccg agaggcagag gttgcagtga cctgagattg cgccactgca ctccaacctg
900
                                                                     904
<210> 323
<211> 3435
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (760)..(760)
<223> n equals a,t,g, or c
<400> 323
                                                                      60
cgagcagcat cagaaagtac gawtctgctc tgagggcgra tgraaaatga agawtctgac
gtaaagcctc cagactkgcc aaacccaatg aatgctacct cccagtttcc tcagcctcag
                                                                     120
                                                                    180
cactttgcag ctttggcctc cgtctgcctcgggatatcac agagctgccc gagtgragta
                                                                     240
ggggtacccc ttctacatgg ccatgggctt cccagggtat gacctctcgg ctgatgacat
                                                                     300
agctgggaag tttcagttca gccggggcat gcgccgcagt tacgacgcag ggttcaagct
                                                                    360
gatggtagtg gaatatgctg agagtaccaa caactgccag gctgccaagc agtttggagt
                                                                     420
attggaaaaa aacgttcgag actggcgcaa agtgaagcca cagcttcaaa acgcccacgc
                                                                     480
catgcggcgg gcattccgag gccccaakaa tgggaggttt gctctggtgg accagcgtgt
ggccgaatat gtcagataca tgcaggccaa aggggacccc atcacccggg aggcgatgca
                                                                     540
                                                                     600
gctgaaagct ctcgaaatcg cccaggaaat gaacattcca gagaaagggt tcaaggcaag
cttgggttgg tgtcgaagaa tgatgagaag gtatgacctg tctctgaggc ataaagtgcc
                                                                     660
cgtgccccag cacctgccgg aagacctgac tgagaaactc gtcacttacc agcgcagtgt
                                                                     720
cctggctctg cgcagggcgc atgactatga ggtagctcan atggggaatg cagataggac
                                                                    780
gcccatttgt ttagaggtgc catcacgggt aactgttgat aaccagggcg aaaagcctgt
                                                                     840
                                                                     900
cttggtcaag acaccaggca gggaaaaact gaaaatcaca gcaatgcttg gtgtcttggc
                                                                     960
tgatggragg aagttaccac cgtacatcat tttragggga acatatatcc ccccggggaa
gtttcccagt gggatggaaa ttcgctgcca ccggtatggg tggatgactg aagacttgat
                                                                    1020
gcaggactgg ttggaagtgg tgtggagacg gaggacagga gcagtgccca agcagcgagg
                                                                    1080
gatgctgatc ttgaatggct tccggggcca tgccacagat tccgtgaaga actccatgga
                                                                    1140
aagcatgaac actgacatgg tgatcatscc agggggtctg acctcacagcttcaggtgct
                                                                   1200
                                                                    1260
ggatgtcgtg gtctacaagc cactgaatga cagtgtgcgg gcccagtact ccaactggct
                                                                    1320
tctggctggg aacctggcgc tgagcccaac cgggaatgct aagaagccac ccctgggcct
                                                                    1380
ctttctggag tgggtcatgg tcgcgtggaa tagcatctca agtgagtcca tcgtccaagg
                                                                    1440
gttcaagaag tgccatatct ccagcaactt ggaggaggaa gacgatgtcc tgtgggaaat
                                                                    1500
cgagagtgag ttgccaggag gaggagaacc accaaaagat tgtgacaccg aaagcatggc
tgagagcaac tgaagggaaa gggaaagcaa atggaactct gatttaaaca gctggggatg
                                                                    1560
aaattootoa agatgattat tootgaaagt gtggatgogo tggatgogoa gggaacatoa
                                                                   1620
ggaaaaggcc acggggctct gaacagcccc ggtccagaca gcagcctgta catccatccc
                                                                    1680
                                                                    1740
aggacacage ccageceete eccacaceat acaaggtate agaaaagtet aggacetate
                                                                    1800
atttcatcag agacatgatc agaaaagaaa ctgcttctgc cccatttctt gttttggaga
                                                                    1860
ttactccatc tgtccatcaa aagaaacctg taaatatgaa agaacaaagg ttatttcctg
                                                                    1920
gagaaaagac aatttattca acaccaacaa gggactcatc atatgggcac aactctggtg
                                                                    1980
tccttctatq qaqaaaacct caaqtaaagt tttattctgc ctttgaaaat gcttccaaaa
gtagaccctg tccccacaca ggtcaagact acagagaaggctttgtagaa atgtgtcacc
                                                                    2040
```

tatgtacacc tgctacttac acatttcctc ttttggaaaa atgagatact tagaataaca

2100

```
agaaaattaa gacatactgg cctggtgcca gcagatggct tttctataga caaactaggt
                                                                     2160
tagtgtggaa gatataggtt aaaataaact atgctgtttt atttatcttc ccaacctgat
                                                                     2220
                                                                     2280
tggcagctag actitittag ggtctcattt aatggccctg tittittcat tattatattt
                                                                     2340
aatgataggg caggatttcg tatgcaagct cttgtttctc aggctgcctg cagaagaagt
                                                                     2400
cgctataaat tatctgttgt ctacatggta caaggcccat tgactcatct gatgcttgtt
                                                                    2460
ttgttaattt ctttaatatt tttatcacgg gcættggga gggcttgggc ttttagccac
                                                                     2520
agctgtttta agacttctga tctcctgccc tgcaggaata ggtgggaagt cattgaattt
ttacactata gtaatttgca ttcccacata agtttgagtg ttacgaaaac attcctttaa
                                                                     2580
agggatctgt gctacacaaa atatgccagg acctcacaga caaagccatt gctagaaatg
                                                                     2604
                                                                     2700
tcattccaat gatcagatct ggaaacaggc tgccataacc acttttcctt cttgtagact
                                                                     2760
cagctcacct gtatatttaa actgttcttg gcatcttgaa acacctattt ctactcaggt
actcattqtc ctqttactqa ttcacctttc tqatcctttt caaccaqttt tcccccaaqq
                                                                     2820
ggggaaattt tacttaacct ctagtattig aacaactcaa tatttgaatt gttgccccat
                                                                    2880
ttgcttttac ctgtactgta ttcttggtca tctcaaatgg cgtctaaacc cagctacttt
                                                                     2940
gcattccaga agtttccatt ccctccaatt ccacctaatt tttcatctgt cctagttact
                                                                     3000
ggctctttct tcatgtctta tttctcttgc tttgggagct taaaagattt tacaagacct
                                                                    3060
aattttgggt tccttccttg gagccatagt taccctgcca agaagagtag aaaatgggtt
                                                                     3120
caactcctgt ttcgctccac caacacctct gtgagtctca tcatcagctg agcgatgatg
                                                                     3180
ccttacaggt tgcatagcac tggaactttc ctagagtaac ggctctgctg ccagggtttc
                                                                     3240
tctgggctca ttcttccact gactaatta tgatctatgc ctaacagagc cccagtacaa
                                                                     3300
ctattttgca gaatggctgt taccctagaa ttactatagc acatattgag atatagttgt
                                                                     3360
actccctagt agataggaac tgaccccaac aataaacttt gataataaag amaaaaaaaa
                                                                     3420
                                                                    3435
aaaaaaaaa aaaaa
<210> 324
<211> 1481
```

<212> DNA

<213> Homo sapiens

## <400> 324

ggcacgagcc tggcagagag actctgaaat gagggattag aggtgttcaa ggagcaagag 60 120 cttcagcctg aagacaaggg agcagtccct gaagacgctt ctactgagag gtctgccatg gcctctcttg gcctccaact tg:gggctac atcctaggcc ttctggggct tttgggcaca 180 ctggttgcca tgctgctccc cagctggaaa acaagttctt atgtcggtgc cagcattgtg 240 acagcagttg gcttctccaa gggcctctgg atggaatgtg ccacacacag cacaggcatc 300 360 acceagigtg acatetatag caccettetg ggeetgeecg etgacateca ggtgeecag gccatgatgg tgacatccag tgcaatctcc tccctggcct gcattatctc tgtggtgggc 420 atgagatgca cagtettetg ccaggaatee egagecaaag acagagtgge ggtageaggt 480 ggagtctttt tcatccttgg aggcctcctg ggattcattc ctgttgcctg gaatcttcat 540 600 gggatcctac gggacttcta ctcaccactg gtgcctgaca gcatgaaatt tgagattgga gaggetettt acttgggeat tatttettee etgtteteee tgatagetgg aateateete 660 tgcttttcct gctcatccca gagaaatcgc tccaactact acgatgccta ccaagcccaa 720 cctcttgcca caaggagete tecaaggeet ggteaacete ecaaagtæa gagtgagtte 780 aattcctaca gcctgacagg gtatgtgtga agaaccaggg gccagagctg gggggtggct 840 gggtctgtga aaaacagtgg acagcacccc gagggccaca ggtgagggac actaccactg 900 gatcgtgtca gaaggtgctg ctgaggatag actgactttg gccattggat tgagcaaagg 960 cagaaatggg ggctagtgta acagcatgca ggttgaattg ccaaggatgc tcgccatgcc 1020 agcetttetg tttteeteae ettgetgete eeetgeeeta agteeecaae ceteaaettg 1080 aaaccccatt cccttaagcc aggactcaga ggatcccttt gccctctggt ttacctggga 1140 ctccatcccc aaacccacta atcacatccc actgactgac ccctgtgat caaagaccct 1200 etetetgget gaggttgget ettageteat tgetggggat gggaaggaga ageagtgget 1260 1320 tttgtgggca ttgctctaac ctacttctca agettccctc caaagaaact gattggccct 1380 ggaacctcca tcccactctt gttatgactc cacagtgtcc agactaattt gtgcatgaac 1440 tgaaataaaa ccatcctacg gtatccaggg aacagaaagc aggatgcagg atgggaggac 1481

<210> 325

```
<211> 652
<212> DNA
<213> Homo sapiens
<400> 325
gaatteggea egageaacag tggggeacte tgeteecagg eggteecae tgggetgage
                                                                     60
cgcacagect ggetttggge tteectgact geaceacea cateasetge etetageeet
                                                                    120
taamatacaa aacttccccc agtcactggc cgccaggctg agttggggga tgtgttacat
                                                                    180
ccctgggtcc actgggggc agtgttggcc atggtgttgg tgctggctct gccgagaggc
                                                                    240
gttggagtgg ctgtgtgggg cggtgagcgc cggcccagcc tgatggaacc cactgtacca
                                                                    300
                                                                    360
ggcccaggcc tcagcctctg agaaggactt ccctgtgtca ctcactcata catgtcctca
ggacgtgaag acatttcagc agaccaaagt ttccttcgaa tttccttcga atcgtccaga
                                                                    420
tacttggaga catctcctcc tcacctgtgg ggtgctgggg cagtcctagg cgtgggggca
                                                                    480
                                                                    540
gatgggtgga cagctgctgc tgccctgctg ggggtgggca gcccttggag cacacagtgg
                                                                    600
tgaagacatt cctgaatatg tctcaggctg tagaaatctt attttgtgga aagattttag
                                                                    652
<210> 326
<211> 1711
<212> DNA
<213> Homo sapiens
<400> 326
                                                                      60
ggcacgageg ctcctgtcct gccactgagg gacccggtta ccaaccctca tgtagctcag
tttgcccatc tgtcccggtg ctaacacaca gttctcggga gactttcccc attcccagag
                                                                    120
gagtagtgcg aaatgcgtgt acctctagtc ttaag@ggg cgtttgtatt agttgggttt
                                                                    180
                                                                    240
tctggtgtct atttagcaag tgaaagtttc tggttccctc cttcactgtg tgacctgact
                                                                    300
agtcctcctg gattgcattt atggaagttt atacgagacc tagtttccat ggaggaactc
actgattccg cgagggagat ggggtactgg atgatggtct tcagccttaa ggctatgttt
                                                                    360
ccagtgtcct ctgggtgttt ccaagagcgg caagaaacga ataaatctct gacccttctc
                                                                    420
                                                                    480
aggtgcagcc agagagacac tagcccactg atggacggac agacgtgggc aagggtccgt
gtcactaaac caccaccac tgccacagct gcctacaaca gacacatcag atgacactcc
                                                                    540
gggcaaataa atgattttca ctgaggacttactggtttta ataataggtc ctggtgtaga
                                                                    600
gaagtccctc aacctattgt gcaacgagtt ttgagaagcg ggtaagctgt atgttttgtg
                                                                    660
gttttgtttc ataaattcat ctacaggaag accaatattg actgaatgaa gctttcattt
                                                                    720
aaagagctaa aatatgcttt gtgtttttat atgtggatac tactttaaac ctaacgacta
                                                                   780
                                                                    840
ttcattgtat catagcttgt gatgtattct gctcatggct tttaaggtaa attgtgccat
gatccactgc cattctaatt gctttaacaa gtcattacca cactactgtt acatcttaat
                                                                    900
tatgcataca gacaggtaga cttgttttac atatgtgaac taactagttg tcaaagcaaa
                                                                    960
tgcagattgt attctgcaag taaacttt ttctctctga aatttctagg gatgttcttt
                                                                   1020
                                                                   1080
aagtgaaatt catattaaaa ctgaagattt tagttacaag aactgagtgc agattaagtc
                                                                   1140
tttgtgattc aacatagtca agatacaact gtggatattt catggaagta tgcaataaaa
tgtctctacc tggaaaaatc tatcaagcag cgtcacagta ctgaatttga aaccagaat
                                                                  1200
                                                                   1260
actgggtttt tatataaatg cttcatagat ttgttttatg ataaagggca cataactctc
ctaaacctca caccacctct tgaataggta taataagtcc acatcaatgc tgatgcctta
                                                                   1320
                                                                   1380
gctattatta aactcttaca gtatgatgta aagtgaaagt acaatgtaag atcattccta
                                                                   1440
ggccaacttt gaccagtttt atacagaaac atgtgccaac ttttctgttt gcaaggataa
                                                                   1500
tatcaaagca aacaccagaa agttatatct ttgatgcatt ttttcaaaat catacacata
atacacaaac caaagacaaa tgatgaatat tacgtcagaa aatataaagt cttccccttt
                                                                   1560
                                                                  1620
cttcttttgc caagaaagtc caatattttc accattttta tgcacacaatcaactttatt
taagetggaa gttaatgtet cattgtttte attgttetaa ataaacacet ttteeettga
                                                                   1680
                                                                   1711
gtattgctct aaaaaaaaaa aaaaaaaaa a
<210> 327
<211> 2058
<212> DNA
<213> Homo sapiens
```

```
<400> 327
ggcacgagct caaagagtæ gaatccaagt gtgtgacatt acatagcttt gcatctatgg
                                                                     60
aaacctaaat cataattgtt tccactgccc aattatgttc cttttcataa catttactat
                                                                     120
tctggctata tttatcatag aacctaggaa ccttagagtt gacctgaatc taattaaatt
                                                                    180
tcagacctcc tggccaaaga ccctagtgga agagcaaaac taaatcaacatattaccaat
                                                                   240
                                                                     300
ctcaagtatt tctctgagga cccagaccac tgactttttg ttgtcatttt caggttgatc
ctataactgt atgttctaca atatctgtgc tccaccagct cagtgaggaa tcaacggaat
                                                                     360
atcaaaagta aatattggtc accatatacc ttttggtact agtctacgaa ataattggct
                                                                     420
                                                                    480
gaggaactgt ttcatattaa agaaaagcta aaagcaatgt gtgatcttag attagaccta
tgattggaat gtatgtatat tttatataca aaatattgag gaaattgaca aaatttaaat
                                                                     540
acagaatatg gattagataa taggaatgta tcaaggtcaa tatttaaaaa gataatttca
                                                                     600
acttttattt tattcagtgg gtacatgtgc agactttgtt ttaetagta cccaacagtt
                                                                    660
                                                                    720
tttcaacgct tatcccccac cctctagtaa tctgcagtgt ctattattgt catcttcgtg
gctattgtac atgggattcc atacttgatt ttgctctcaa catgaacatt attggtgtag
                                                                     780
agaaatgcca ctaagttttg tacgttgctt ttgtatcctg aaactttgct aaagttattt
                                                                     840
atcatttcca ggagcctttc gttggagtct ttagggtttt ctagttagag agtcatcagt
                                                                    900
                                                                     960
gaagagagat aatttgactt cttcttttcc tttttgggtg ccttttactt ctttctcttc
cctgattgct ctggctaggg tttctaacat caaatttttt gatgttgatc attatactgt
                                                                    1020
agttatgcag gggaatgtct ttgttctttc taaagaaca tcaatgttaa acattgaaat
                                                                   1080
1140
                                                                    1200
agaaagagac agagagaaag aataagaaaa gagagtgagt aaatggggca aaatgcaaac
                                                                    1260
aatttgtcaa tctatgtaaa atgtttacaa gagttctgtg ttacattttt gcaactcttc
tgtatgttta aaataatgtt aaaataacaa ttttcccaaa tgtcaaatgt tgccacatac
                                                                    1320
aagcatttat gagcatggaa aatgtggctt ctgaatgata ggatacaaaa tctggtgatg
                                                                    1380
aqcgaataca ctgaatatat caagattgag ttgccatctt agaaggagaa tattagctat
                                                                   1440
aaatcacatg atgaatacat caatattaaa tagactagaa aaccaataat tataaggtca
                                                                   1500
                                                                   1560
caagagtgca ataaacatga attatctcca ttgcatgtat tttcatctct acttgccagt
                                                                    1620
tttatgagat tcagtcccca atatattttc aattaattca acatagaaga ttcacttcta
                                                                    1860
gtatgttttc aaattgtttc aaaccetgac catetttttg attgetetac ettecaaaag
aaaagaaggg aacactaatt ttettteetg atttaettea ttgttteett etgttagatt
                                                                    1740
aactttacct ataaaagatt gtctcttgac tttatatata tatatatgtg tgtgtgtgt
                                                                    1800
tgtgtgtgtg tgtgtgtgt tgtgtgtgtg tatttgaaga ggacatgtgc ctccataaaa
                                                                    1860
ggaaataaaa tgagagaata cattattont tttgtgaaat caaaatattt gaattatggt
                                                                   1920
ttctcaatat tcaaaaactc ttgcagtttc tgtacttatt tcttctgatg catagagttt
                                                                   1980
                                                                    2040
cggggactac atatgtttca caaccaaaga tatccacttg aaataaaaac attataaagt
                                                                  2058
taaaaaaaa aaaaaaaa
<210> 328
<211> 963
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (2)..(2)
<223> n equals a,t,g, or c
<400> 328
                                                                      60
tncagaggcc ctgcggagtt gttcagaacc ccaactctct ctggctggct accccctgaa
ctactgggtc tctggaccca ttgtgcccag ccacccccaa aagccctcag gcgagagctg
                                                                    120
cctgaggagg caccgctgag gaggaaagga gaaagattga agttccaagt gagattgaga
                                                                    180
gatctcccta gaggcagctg aagaggagaa gtcccgcatc agcctcatcc caccagaaga
                                                                     240
                                                                   300
acggtggtaa gcggccaggc tccgtggrag ccagggccca magcccttgg ccagktkgtg
gaaacagctg ctgggatggg tatqcccctt gtcactgtca cagctgccac cttccctact
                                                                     360
                                                                     420
ctctcatgtc ctcctagggc ctggcctgag gtggaggcgc cagaagctcc tgcattgccc
                                                                     480
gtggtgcctg aactccctga ggtgcccatg gagatgcctt tggtgctgcc cccagagctc
```

```
540
qaqctqctct cactggaagc agtgcacagg taccaggrag gtggcacctt gatggggtgg
                                                                     600
accoggetg aagcototgo taatggttot tgatocotat agggcagtgg cactggagyt
                                                                     660
qcaqqctaac aqqqaqcccg acttcagcag cctggtgtca mctctcagcc cccgcaggat
                                                                   720
qqctqcccqq qtcttctamc tgctcctggg tgartgtatg catgtgtgtg tgttatgtk
                                                                     780
gggcagggac acagagacca gaggcccgta cagggactcc cccgacctgc cctctcctcg
                                                                     840
cctcttgacc agtgctctca gcgcaacaga ttcttcacgt gaaacaagaa aagccatatg
gtcgcctcct gatccagccg gggcccagat tccactgagg ttagagtcca tttacaaagc
                                                                     900
960
                                                                     963
agg
<210> 329
<211> 1134
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1134)..(1134)
<223> n equals a,t,g, or c
<400> 329
                                                                      60
ncgccccgga ctcttctcag ttgagagtgc ggttcctggg caggtttcca caccagttcc
                                                                     120
tttccgcgtc cttcggccct ggctctggct gcctggcgga ggtggggtag catttgtcat
                                                                     180
ttgcacactg ctggctttat ctttggggct gcaccccgag gcaacaaatg caggatgctc
                                                                     240
tgtcaccac atgtccacca ccatctggtt tgccttttgg ctactttgac tttctcctta
                                                                     300
aatgcttcct gtgctgagca aacattccac agccagcaga gcaatggaga gttcatggcc
                                                                    360
actcttccca gtatcagcaa gcaatttggg gtgatcgttt ggagcctca gaggaaagat
gtcatcaggc ttcctgtggc tttgtccttc agcagtgggg ctcggcttgc tttcacctgc
                                                                     420
cttaggaaga tttctggctt ccgagctctg atatggggag aagataaggg ctgggatctt
                                                                     480
                                                                     540
tgagtctgcc cctagctggg tatgtgcgtc cggtgtgcgg gccttggagt ttttggtaat
                                                                     600
gactcacttg tgctctttct gggatctgtc tccctcccac atgaccccgt ggggtccctg
                                                                     660
aatqactqtt ttaqaqtacc catqtqqqtt ccctqaqtca caqcaqqqqa tqtttaataa
                                                                     720
ggaggttagc actgagcttg gggacgtgct gtcacaccag caggacgctg caggaaggag
                                                                    780
caggctactt cctttcttga cgtgcaaata actcgtata gctaatcaac aggcttataa
gttaaaaggg ctaccgctcg gccccttggg gattccatcc cctcctctgt aacttggaga
                                                                     840
tgtttgtttc tgctgcagac tcagagggtt gcgatgaaga gtggtgggac tgagttgaga
                                                                     900
agcttatccc ttcgctgggt gggaggtttc taattgcccc gttctttggg ggatccttaa
                                                                     960
gtccagcttc caggtggggg cagcgatagg accaagttct cctagtagtc tctgggaagc
                                                                    1020
cacttgaggg aagctgccgg tcatcccatg cacccattgg tcttctccag caggccctgt
                                                                    1080
                                                                    1134
aggtcqtcca tqttccatqc cttctqggtt cttgggggag aaggaagctg ttgn
<210> 330
<211> 1991
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (300)..(300)
\langle 223 \rangle n equals a,t,g, or c
<220>
```

```
<221> misc feature
<222> (353)..(353)
<223> n equals a,t,g, or c
<400> 330
gcgacgctcg gcccgaagat ggcggccgaa tggggcggag gagtgggtta ctcgggctca
                                                                      60
ggcccggccg gagccggtgg cgctggagcg ggtctgtgtg ggtccgaagc gttttactcc
                                                                      120
tgttgggcgg gctccgggcc agcgccacat ctactcccgt ctccttgggc agttcccctc
                                                                      180
cctgccggca ccacgtcccc tctgacactg aggtcataaa taaagttcat cttaaggcaa
                                                                      240
                                                                      300
atcatgtggt caagagagat gttgatgagc atttaagaat caagactgtc tatgataaan
                                                                      360
tgktgaasag ttgctccctg agaaaaagaa tcttgtaaag aacaagcttc tcncacawgc
gatttcttat ttagagaaga cttttcaggt ccgtcgacct gcgggcacta tcttacttag
                                                                      420
cagacaatgt gcaacaaacc aatacctccg gaaggaaaac gatcctcaca ggtactgæc
                                                                     480
cggggagtgt gccgcacaca caaagtgcgg ccccgttatt gttcctgagg aacatctcca
                                                                      540
                                                                      600
gcaatgccgg gtctaccgtg ggggtaagtg gcctcatgga gcagtgggtg tgccagacca
                                                                      660
agaaggcatc tcagatgcag actttgttct ttacgttggt gctctggcca ccgagagatg
cagccatgaa aacatcatct ctatgcagc ctattgtcag caggaagcaa acatggacag
                                                                      720
                                                                      780
gccaatagca ggatatgcta acctgtgtcc aaatatgatc tctacccagc ctcaggagtt
tgttgggatg ctgtccacag tgaaacatga ggttattcat gccctgggtt tctctgctgg
                                                                      840
gctgtttgca ttctaccatg ataaagatgg aaatcctctc acttcaagat t&cagatgg
                                                                     900
cctyccacct tttaattata gtctgggatt atatcaatgg agtgataaag tagttcgaaa
                                                                      960
                                                                     1020
agtgragaga ttatgggatg ttcgagataa taagatagtt cgtcacactg tgtatctcct
                                                                     1080
ggtaacgcct cgtgttgttg aggaagcacg aaaacatttt gattgtccag ttctagaggg
aatggaactt gaaaatcaag gtggtgtggg cactgagctc aaccattggg aaaaaaggtt
                                                                     1140
attagagaat gaagcgatga ctggttctca cactcagaat cgagtactct ctcgaatcac
                                                                     1200
tctggcatta atggaggaca ctggctggta taaagcaaat tacagcatgg ctgagaagtt
                                                                     1260
agactggggc cgaggaatgg gctgtgactt tgtcaggaag agctgtaat tctggattga
                                                                    1320
                                                                     1380
tcagcagaga caaaagagac agatgctgag cccttactgt gacacgctca gaagtaaccc
                                                                     1440
actgcagcta acttgcagac aggaccagag agcagttgcc gtgtgtaatt tgcagaagtt
                                                                     1500
ccctaagcct ttaccacagg aataccagta ctttgatgaa ctcagtggaa tacctgcaga
                                                                     1560
agatttgcct tattatggtg gctccgtgga aattgctgac tactgscctt tcagtcagga
attcagttgg catttaagtg gtgaatatca gcgcagctca gattgtagaa tattggaaaa
                                                                     1620
tcaaccagaa atttttaaga actatggcgc tgaaaagtat ggacctcatt ccgtttgtct
                                                                     1680
aattcagaaa tcagcattcg ttatggagaa gtgtgagagg agctgagtt acccagactg
                                                                    1740
                                                                     1800
gggaagcgga tgctatcagg tttcttgttc tcctcaaggt ctgaaagttt gggtccaaga
tacttcatat ttgtgtagtc gggctgggca ggtcctccct gtcagtatcc agatgaatgg
                                                                     1860
ctggattcac gatggaaacc tgctctgccc atcatgttgg gacttctgtg agctctgtcc
                                                                     1920
tccagaaaca gatcctccag ccactaacct gacccgagct ctgccacttg atctttgttc
                                                                     1980
                                                                     1991
ctgttcctcg a
<210> 331
<211> 2398
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1874)..(1874)
<223> n equals a,t,g, or c
<400> 331
attgcttagt ttgatgtgtc ttgctttaaa tccatttatt tcaacaagct taaagagatt
                                                                       60
                                                                      120
tttttttaat ggagatgatt taattttaac aatctgtgat tttctctgaa tcgaacttgt
gttttggcac ctttcaatct gtggtaacaa atgacaagaa gggtgcaatt cttccttccc
                                                                      180
ttgtgcaggg attttgcctc cccctttctc ccagatgaaa gatatttggg tctctagaat
                                                                      240
                                                                      300
aactgtggta cagttagctc cagagtgttt tctttctgga ggcagtttag acaacagcct
caagtagtgc ttttgttaaa aatatacatg tttttaaaag tgcttgtatt tctaatattc
                                                                      360
```

```
ttttctcctt tctcttctag tctgttctctggggaggcag taaggggccg tggagctggc
                                                                     420
ctcggcctcg gcatcgggag aggctggact tcctgtctct ctgtgctgaa tggctgcgat
                                                                      480
                                                                      540
ggcgcccgct ctcactgacg cagcagctga agcacaccat atccggttca aactggctcc
                                                                    600
cccatcctct accttgtccc ctgggcagtg ccgaaaataa cggcaacgcc aacatcctta
                                                                      660
ttgctgccaa cggaaccaaa agaaaagcca ttgctgcaga ggatcccagc ctagatttcc
                                                                      720
gaaataatcc taccaaggaa gacttgggaa agctgcaacc actggtggca tcttatctct
                                                                      780
gctctgatgt aacatctgtt ccctcaaagg agtctttgaa gttgcaaggg gtcttcagca
                                                                     840
agcagacagt ccttaaatct catcdctct tatctcagtc ctatgaactc cgagctgagc
tgttggggag acagccagtt ttggagtttt cyttagaaaa tcttagaacc atgaatacga
                                                                      900
                                                                      960
gtggtcagac agctctgcca caagcacctg taaatgggtt ggctaagaaa ttgactaaaa
gttcaacaca ttctgatcat gacaattcca cttccctcaa tgggggaaaa cgggcttca
                                                                    1020
cttcatctgc tcttcatggg ggtgaaatgg gaggatctga atctgggggac ttgaaggggg
                                                                     1080
gtatgmccaa ttgcactctt ccacatagaa gccttgatgt agaacacaca attttgtata
                                                                     1140
                                                                     1200
qcaataatag cactgcaaac aaatcytctg tcaattccat ggaacagccg gcacttcaag
gaagcagtag attatcacct ggtacagact ccagctctaa cttggggggt gtcaaattgg
                                                                    1260
                                                                     1320
agggtaaaaa gtctcccctg tcttccattc ttttcagtgc tttagattct gacacaagga
taacagettt actgeggega caggetgaca ytgagageeg tgeeegeaga ttacaaaage
                                                                     1380
                                                                    1440
gcttacaggt tgtgcaagcc aagcaggttg agaggcatat acaacatcagctgggtggat
                                                                     1500
ttttggagaa gactttgagc aaactgccaa acttggaatc sttgagacca cggagccagt
                                                                     1560
tgatgctgac tcgaaaggct gaagctgcct tgagaaaagc tgccagtgag accaccactt
cagagggact tagcaacttt ctgaaaagca attcaatttc agaagaattg gagagattta
                                                                     1620
cagctagtgg catagccaac ttgaggtgca gtgaacaggc atttgattca gatgtcactg
                                                                     1680
acagtagttc aggaggggag tctgatattg aagaggaaga actgaccaga gctgatcccg
                                                                     1740
agcagcgtca tgtacccctg tgagtagacc tcatgcatga tagcattctt gagaaatgtt
                                                                     1800
ggcacaagga agaatgaatg aatcgccatt atggagagaa tgtgtsttt gtacataggt
                                                                    1860
gtytagttcy gttngttttt tccctgatgt tgggtagatg agtgcatata catgctagtg
                                                                     1920
                                                                     1980
aagaagggga agatactttg ctgtagggtt gtattgttgt agtctaaatg gtggtaattt
                                                                     2040
ccttttgaag tctaagaaaa ataactagga gacatcttat gtgtaaaatt gtactagtac
                                                                     2100
ctctttaaga gtgaatttag atttcttttg aaactatata taggacatga taagttaatg
gcctgattgt tgagattttg ttgtttccag taagcaggga caaatgctga gttgacctag
                                                                     2160
ttacctttgt aggaaattac agttgctttt gattgaactt tcagcagaga gcacacccag
                                                                     2220
tcttcaattt taacacttga gattttctta cattttaaggactgacaatt agaaaatgct
                                                                    2280
tcagaatatt taatacatcg cctccaagca cagtctagtt tcacaacctg actctcttcc
                                                                     2340
tattaaaaaa aaaaaaaaa aactcgrggg ggggcccgta cccaatcgcc cctcatga
                                                                     2398
<210> 332
<211> 1505
<212> DNA
<213> Homo sapiens
<400> 332
gcaccatggc cacgcccctg gaggatgttg gcaagcaggt gggtaggtct tgtctgcttc
                                                                       60
ctgtggccct gatgggtccc tgcagagcct cacgctgctt gtcgctcctt gtcctcttcc
                                                                      120
                                                                      180
ctccaggtgt ggcggggcgc cctgctcctg gcagactaca tcctgttccg acaggacctc
                                                                      240
ttccgaggat gtacagcgct ggagctcggg gccggcacg ggctcactag catcatcgca
                                                                      300
gccaccatgg cacggaccgt ttattgtaca ggtaatgagg tgacatctca ggctgcaggg
                                                                      360
aagtagtcac cttcacaaag catgcactga ctgtataaaa aaagaggcag aggcaatgga
aattggatgt tagctgctgt tgattttgcc atcctggtcc cctggccctc tccactctcc
                                                                      420
attttttctc agtgacatca aaatgaccca gcaatacgca ctcagcagca gcagcgtcac
                                                                      480
                                                                      540
ccagtggcta taaggccatt gagcttcagg aggtgcctag cgcccctgct ggtacctctc
                                                                      600
tccccactcc tgagaaagag caaatatctc caaaaacagg aggaatatac ccttttagaa
gcctttgaaa gcaagtttat tattttttc ctggtatag aagccttgcc cattctttgt
                                                                      660
                                                                      720
aggaggtttt taaaacagta cataaaaatt actcataatt ttacaatccc tagattgaat
caacaatatg caacttatgg gtcacctccc gtgtgccact catttctaga tgtaggaggc
                                                                      780
                                                                      480
cctgcggtga atggagctga ctaggcactg ccctcagggc gcttacgttg taagaatctc
                                                                       900
ctccaaatga tagctgaaat caagctgcag cagcactgta ttctgctgaa aatgttgaaa
aacattttta agagcatttt cttttttaaa tatgtatata tttagggggt acaagtgcgg
                                                                       960
```

```
gtttctgatg tgcagctata ttgcagtgat gacatccgtc tgggctttta gtggaccttc
                                                                     1020
                                                                    1080
cactcaaata gtgracattg tacccaatag ggaagcttta atcccccacc cctyccaccg
tqtcacctty tqqaatcccc agtqtctqtq tttccactca qtatqtccat gtttacccat
                                                                     1140
                                                                     1200
tgtttagctc ccactcataa gtgagaacat tttaagagca ttttctcatg ccattaaaaa
                                                                   1260
attattatat aggccaggtg cggtggctga catctgtaat cccagccctt tgggaggcg
aggcaggcag atcacctgag gtcaggagtt tgagaacagc caggccaaca tggtgaaacc
                                                                     1320
                                                                     1380
ctgtctgtac taaaaataca agaattaacc agatgtggta gcggcgggca cctgtaattc
                                                                     1440
cagctacttg ggaggcttga acctgggagg cagaggttgc agtgagctga gattgcacca
ctgcactcca gtctgggcca cæagtgaga ctctgtctca aaaaaaaaaa aaaaaaaaac
                                                                    1500
                                                                     1505
tcgag
<210> 333
<211> 1193
<212> DNA
<213> Homo sapiens
<400> 333
                                                                     60
cageceegee ttetetacae aggaaagete agtggeeeee aagecaggat gteecaagt
                                                                      120
tgggtccccg gcctcgcgcc caccttgctg ttcagcctgc tggctggccc ccaaaagatt
gcagccaaat gtggtctcat ccttgcctgc cccaaaggat tcaaatgctg tggtgacagc
                                                                      180
                                                                      240
tgctgccagg agaacgagct cttccctggc cccgtgagga tcttcgtcat catcttcctg
                                                                     300
gtcatcctgt ccgtcttttg catctgtggc ctggctaagt gcttctgtcg caactgcaga
                                                                      360
qagccqqagc cagacagccc agtggattgc cgggggcccc tggaactgcc ctccatcatc
                                                                      420
cccccagaga gggtcagagt atccctttct gcgcccccac cccctacag tgaggtgatt
                                                                     480
ctgaagccca gcctgggccc aactcccaca gagccacccc ctccctacag ctcaggcct
gaagaatata ccggggatca gaggggcatt gacaacccgg ccttctgagt cacctcctgc
                                                                      540
ctggaatctt gccatcagca acctectece cagtgeetee tggatcaage tagagaetge
                                                                      600
                                                                      660
tggcacccca ggaatgtccc tgcccatcct gccgtgtctc tgttcattct tggatttaac
                                                                     720
ttattacttt ttctgctct gtttccaccc cagctgcctc tcttgtcctg agggttaggc
                                                                      780
tggagtgaca gtttccgccc acccccagc ccaagaaaga ggctgccgga aagaaaatgc
                                                                      840
tgaccattgg aggtgcccaa cagtagaatg ggctactgtg aggggtagta agagccccat
                                                                     900
ttctggaggt atgcaaatct tgactggaca gccagctctg agatttatc agggcacttc
tatacctgtg ggacattgga ctggatgagc cctgagccag cttccactcc tacctgaata
                                                                      960
                                                                     1020
qaqaactcac tgcacccacc cacaacacat gataaacaca tgtcctcact gaatgttact
                                                                     1080
gattgcggct gagggcctgc ctctggctgt gtggggaggt gggtggagag gtgagcccag
gcactgctga ggggtgcggt gatggggtcg ctgcgccgca atcccaccac tgatgagcca
                                                                     1140
                                                                     1193
cctgggaggt ctgggaggcc agtccatcca tgggccgccc tcggagagag gct
<210> 334
<211> 868
<212> DNA
<213> Homo sapiens
<400> 334
                                                                      60
gactgactat agggaaagct ggtacgcctg caggtaccgg tccggaatc cgggtcgacc
                                                                      1.20
cacgcgtccg ctgaatttag gagacttttt acccaggggc aaaaggctct tagggtaatg
                                                                      180
agatggatgg tggcccaggt gcattttcca gggcctgggt tctccagatc ccgtggcttc
                                                                      240
tgttgagtgg aggcaacttt gctctgtgtg aacctcgccc ctgtccctct gccgggcacc
cctggcagga agcaggactc ccatcctcac cctgacttag actgtcctct gagtcagctc
                                                                      300
                                                                      360
ctctccaaga caggagtggg cagccctggg cagtcttctg gccccttgct aaagtgaggg
scaggaagct ggggctgccc tccagaaagc cggggtaggr actctgaaaa atacctcctc
                                                                      420
                                                                     480
taaacggaag cagggytctc cagttccact tggcgccccc tccacaagg cccttcctcc
                                                                      540
ctgaggaccc cacccccta cccttcccc agcagccttt ggaccctcac ctctctccgg
                                                                      600
tgtccgtggg tcctcagccc agggtgagct gcagtcaggc gggatgggac gggcaggcca
                                                                      660
gaggtcagcc agctcctagc agagaagagc cagccagacc ccaaccctgt ctcttgtcca
tgccctttgt gatttcagtc ttggtagact tgtatttgga gttttgtgct tcaaagtttt
                                                                      720
tgtttttgtt tgtttggttt ttgttttgag ggggtggggg gggatacaga gcagctgatc
                                                                      780
```

```
840
aatttgtatt tatttatttt aacattttac taaataaagc caaataaagc ctcaaaaaaa
                                                                     868
aaaaaaaaa aaaaaaaagg gcggccgc
<210> 335
<211> 853
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (75)..(75)
<223> n equals a,t,g, or c
<400> 335
naaggcaaat ttcttcctca gtcgtgtggc aggccctgag caggcagctg ggtgtccccg
                                                                       60
                                                                      120
ctcagatcca ggccncgaat gggctgggcg ggttgcagaa gccatcacct gagctaccca
                                                                      180
qqqtqqqatc cctqqcccq acctctqtcc tgacacqccc caagcqgcag caacaaagcc
                                                                     240
ccaattggcc tgggcctggg caggaggagc tgggccgggt gccagatact gggatcagcc
actgcagctc cctgagcact ctctacagag acgcggaccc cagacatgag gaggctcctc
                                                                      300
                                                                      360
ctggtcacca gcctggtggt tgtgctgctg tgggaggcag gtgcagtccc agcacccaag
                                                                      420
gtccctatca agatgcaagt caaacactgg ccctcagagc aggacccaga gaaggcctgg
ggcgcccgtg tggtggagcc tccggagaag gacgaccagc tggtggtgct gttccctgtc
                                                                      480
cagaagccga aactettgac caccgaggag aagccacgag gtcagggcag gggccccatc
                                                                      540
cttccaggca ccaaggcctg gatggagacc gaggacaccc tgggccgtgt cctgagtccc
                                                                      600
                                                                      660
gagcccgacc atgacagcct gtaccaccct ccgcctgagg aggaccaggg cgaggagagg
                                                                      720
ccccggttgt gggtgatgcc aaatcaccag gtgctcctgg gaccggagga agaccaagac
cacatctacc accccagta gggctccagg ggccatcact gcccccgccc tgtcccaagg
                                                                      780
                                                                     840
cccaggctgt tgggactggg accctcccta ccctgcccca gctagacaaa taaaccccag
                                                                      853
caggccgggt tat
<210> 336
<211> 2561
<212> DNA
<213> Homo sapiens
<400> 336
cccgagaggc ccggttcctt taggccgcct gcccgcctcc agctctcggg gtcggctcca
                                                                       60
                                                                      120
qqaqqcqccc tcaggagagg ggcgggcgctctattccaga gaccgagtgg cagggcggcc
                                                                      180
actgtggcgg ggctctttcc ccgtttcgcc tcagctaccc ctcagctccg gtagtcgcca
                                                                      240
gtccggggtc gtcgccgttt ggggcgggag ctgctcggcc ccgccgccgt ccccgtcgcc
                                                                     300
gcttccgggt ccaggcccct cgggccgcct gccgccgtca tgaggctgcg ggtgcggctt
ctgaagcgga cctggccgct ggaggtgccc gagacggagc cgacgctggg gcatttgcgc
                                                                      360
tcgcacctga ggcagtccct gctgtgcacc tgggggtaca gttctaatac ccgatttaca
                                                                       420
attacattga actacaagga tcccctcact ggagatgaag agaccttggc ttcatatggg
                                                                      480
                                                                      540
attgtttctg gggacttgat atgtttgatt cttcaagatg acattccagc gcctaatata
ccttcatcca cagattcaga gcattcttca ctccagaata atgagcaacc ctctttggcc
                                                                      600
                                                                       660
accagctcca atcagactag catgcaggat gaacaaccaa gtgattcatt ccaaggacag
                                                                     720
qcaqcccaqt ctgqtqtttg gaatgacgac agtatgttag ggcctagtca aaatttgaa
                                                                      780
gctgagtcaa ttcaagataa tgcgcatatg gcagagggca caggtttcta tccctcagaa
                                                                      840
cccatgctct gtagtgaatc ggtggaaggg caagtgccac attcattaga gaccttgtat
                                                                      900
caatcagctg actgttctga tgccaatgat gccttgatag tgttgataca tcttctcatg
                                                                      960
ttggagtcag gttacatac tcagggcacc gaagccaaag cactgtccat gccggagaag
```

```
tggaagttga gcggggtgta taagctgcag tacatgcatc ctctctgcga gggcagctcc
                                                                     1020
                                                                     1080
gctactctca cctgtgtgcc tttgggaaac ctgattgttg taaatgctac actaaaaatc
                                                                    1140
aacaatgaga ttagaagtgt gaaaagattg cagctgctac cagaatcttttatttgcaaa
                                                                     1200
gagaaactag gggaaaatgt agccaacata tacaaagatc ttcagaaact ctctcgcctc
                                                                     1260
tttaaagacc agctggtgta tcctcttctg gcttttaccc gacaagcact gaacctacca
                                                                     1320
gatgtatttg ggttggtcgt cctcccattg gaactgaaac tacggatctt ccgacttctg
gatgttcgtt ccgtcttgtc tttgtctgcg gtttgtcgtg acctctttac tgcttcaaat
                                                                     1380
gacccactcc tgtggaggtt tttatatctg cgtgattttc gagacaatac tgtcagagtt
                                                                     1440
caagacacag attggaaaga actgtacagg aagaggcaca tacaaagaaa agaatccccg
                                                                     1500
aaagggcggt ttgtgatgct cctgccatcg tcaactcaca ccatccatt ctatcccaac
                                                                    1560
                                                                     1620
cccttgcacc ctaggccatt tcctagctcc cgccttcctc caggaattat cgggggtgaa
                                                                     1680
tatgaccaaa gaccaacact tccctatgtt ggagacccaa tcagttcact cattcctggt
cctggggaga cgcccagcca gtttcctcca ctgagaccac gctttgatcc agttggccca
                                                                     1740
                                                                     1800
cttccaggac ctaaccccat cttgccaggg cgaggcggcc ccaatgacag atttcccttt
                                                                     1860
agacccagca ggggtcggcc aactgatggc cggctgtcat tcatgtgatt gatttgtaat
ttcatttctg gagctccatt tgtttttgtt tctaaactac agatgtcaac tccttggggt
                                                                     1920
                                                                    1980
gctgatctcg agtgttattt tctgattgtg gtgttgagg ttgcactccc agaaaccttt
taagagatac atttatagcc ctaggggtgg tatgacccaa aggttcctct gtgacaaggt
                                                                     2040
tggccttggg aatagttggc tgccaatctc cctgctcttg gttctcctct agattgaagt
                                                                     2100
ttgttttctg atgctgttct taccagatta aaaaaaagtg taaattacat tggtggtctt
                                                                     2160
gacttttatt acagaaagat atgtagtaaa tattcagaac agatacacaa tgttacttgg
                                                                     2220
                                                                     2280
acatttcaga attatcagag aacatagcat aggcagataa tttttgtaag ggttttctgt
ttgtttgttt tttttttt tagcagcgct ctgtcttcta ataaaggcct gatttatgaa
                                                                     2340
atgaatgaaa acagagctag tttggttgaa ctggacttgg ggtgggtgct ttggctacac
                                                                    2400
                                                                     2460
acctactcaa atccacctct tctctcgact tctctctctc tgcagctctt tcttgggttc
                                                                     2520
tgtggtggaa ctttctgggc tgtgaagcaa tgctgttgaa aggccatttg gtattaggga
                                                                     2651
ctcctgtttg tggctcctgg gatgaggtgg ttatgatttt g
<210> 337
<211> 1502
<212> DNA
<213> Homo sapiens
<400> 337
                                                                        60
gctgattacc tttatgttgg tttctcttat tatttgtctc ttgctagatc tgctaaacca
                                                                      120
acccagcttg ctcagagatc tcatattgaa gcaacataca ggcaatccac atctttcttt
ccctttgaag tatagtcatt ggatgggatg aggacaggg cctgttgggt tcacagggcc
                                                                      180
                                                                      240
ttgcactgca tgggcacata cttaaaagct cttgtgcatg gaatccctgt ctgttagcca
caggoctott tagototata cattoaaaat aactactgta gtagaaaata gataagotto
                                                                      300
agctgagttg gcttttgata gtggaaaaaa aacaaaattt gactttttat ggccaaaatt
                                                                     360
ccttgttgac agctgtgatg ttctaatatg atttgggaat atgtcagtct acagaacctg
                                                                      420
                                                                       480
catcctgtaa aaacaccttt ggggtagacg ataaaagtca tttttaaggc aaatacttac
catgtgactt tttattacca aatgcatcag tagtggagct ggtatgttgt ttcataggat
                                                                      540
                                                                      600
ggaaacatta gaagtccaga gaaaaataaa ttttaaaaaa aggtggaaaa gttacggcaa
                                                                       660
acctgagatt tcagcataaa atctttagta tgaagtgaga gaaagaagag ggaggctggt
tctgttgctc gtatcaatag gttatctgtg tccctcatct tggtgttaca gtgttatttc
                                                                       720
tgtcagtatt atgaatatgt ggttgaccca tcctgtcaaa tgtaccaaca ttttcgaag
                                                                     780
aattcattca aatctcttat gccaacagaa aagttccttc ttgtttaata tctctttacc
                                                                      840
tcagtcctac attttgattc tctggaggag attttagctt gtcttaaaaa gccaaatttg
                                                                       900
gagtcatcaa gcctgctgaa cctgatgggg cagctttttg aacagctttc tggaagtaag
                                                                       960
                                                                     1020
aacttcagtt gaaaagccct ttgatcgctt cagcccggga catgcccttc agatggctta
                                                                     1080
ttctcagtaa agctttatgt agactgtgac actgtatatg tgtgactcgt acaactttga
                                                                      1140
cgtgtttctg aagtggttta atcgtatttg ttattagctt ctttgtggaa atgcaatttt
                                                                    1200
tatactaaaa acattgctta tttgcaatgc aatatgttat aaatttgttg ttatattac
tggtattagt cttagcctaa tgaacctaat tatttttctt tctgtattct ttgcttcctc
                                                                      1260
aaatagcatc tgcagcaatt ggaatgagaa atccagatat gtgtttcaag tagtacattg
                                                                      1320
cctgaatcac aaatcacttg atcacagtat tgtatataat ccctgatcct atttgtttca
                                                                      1380
```

```
1440
ttttattqta aattcccatt tgcatcaaaa cctaatgata gtgattggta agtaaaaaca
                                                                   1500
1502
<210> 338
<211> 3308
<212> DNA
<213> Homo sapiens
<400> 338
ccacgcgtcc ggcccagggc tgtctgtctc caaagcccaa ccataactca catccccatt
                                                                     60
ccagetecte tgggtgagte tgtteeceet cageeteact tteettatee tgteaaatga
                                                                    120
aggatttgga atgacttaag ttattcaagc aacaaacact tactgaattg tcttgccact
                                                                    180
tccaqqqtqa cattatqqaq ttctqtqatt ctgcaagaqg ccaqagggga caaggtcaag
                                                                    240
                                                                    300
tgggtgttca cctggcccct catcttcctc ctgtgcgtca ccattcccaa ctgcagcaag
                                                                    360
ccccgctggg agaagttctt catggtcacc ttcatcaccg ccacgctgtg gatcgctgtg
                                                                   420
ttctcctaca tcatggtgtg gctggtgact attatcggat acacattgg gatcccggat
                                                                    480
gtcatcatgg gcattacttt cctggcagca ggacaagtgt ccagactgca tggccagcct
aattgtggcg agacaaggcc ttggggacat ggcagtctcc aacaccatag aagcaacgtg
                                                                    540
tttgacatcc tggtaggact tggtgtaccg tggggcctgc agaccatggt tgttaattat
                                                                    600
ggatcaacag tgaagatcaa cagccggggg ctggtctatt ccgtggtcct gttgctgggc
                                                                    660
                                                                    720
tctgtcgctc tcaccgtcct cggcatccac ctaaacaagt ggcgactgga ccggaagctg
                                                                    780
qqtqtctacq tqctqqttct ctacqccatc ttcttqtqct tctccataat gatagagttt
                                                                    840
aacgtcttta ccttcgtcaa cttgccgatg tgccgggaagacgattagcg ctgagtcgcg
                                                                    900
gcccctggga gctgatctgg acaccctgtg acactggcgt cctcctctc cctcctcc
ccaccacagg teteteetge ataggeagee actgteegtt ettteacaca etggaaggaa
                                                                    960
gagccatcqt ggtctttgtc tggccacagc caagctgctg ggcatcctcc tcctccttgg
                                                                   1020
                                                                   1080
agttccaccc ctgcaaggct ggatttgggg gccattatct gagcagcttc aaagacccct
                                                                   1140
gagetgeeaa ceaeggagat gtgeeaagea teteatetet eetgeaeact ttagteagaa
                                                                   1200
ggacttctgc atgcagtttg tctttctgtt ctgcaggcag cttcagaatt gaggtcattt
gtgagcacaa gatctcatag ggcaggtgca aaatæggaat gttgttctca agtgtcacct
                                                                   1260
ccagcccaga ggtggttcct taggcagcat gtgctcctgg gagcctctga cttttgctgg
                                                                   1320
aagcacccac agtttggaag gggcaagacc tcaacctgtt ggggtttagg gcccatgatg
                                                                   1380
gcagacattc tacccctttt cctggaaaaa ctggaagaat gaaaataatt tttttctgtg
                                                                   1440
                                                                   1500
gaagagagaa aatgagtgaa tattcttctc acttttattg atgcattcag agaataagca
atgaaatatt aaaaaatgaa acatcatata ggtcatcata cttgaaaatt atcattccat
                                                                   1560
atgaaaggat catgatacac accaaaaaag taatgatcgt aaagacacaa atcctctgta
                                                                   1620
tgccatcttg cattggcact gaggtgtttggtttggaata gggaaaaaga gacaggatct
                                                                   1680
cgctqtgttc cccaggtagg tcttgaactc ctggcctcaa gtgatcctcc tgccttgacc
                                                                   1740
teccaaaqtq etgqattaca aqeqtqaqee eetgcaeeeq qeecaaqeaq ttqettettt
                                                                   1800
ttttctcttt tttttttt ttgagatgga gcctcactct gttgcccagg ctggagtgca
                                                                  1860
                                                                   1920
gtggcgcgat ctccactcac tgcaagctcc gcctcccggg ttcatgccat tctcctgcct
                                                                   1980
cagcctcccg agtagctggg actacaggcg cctgccacca cacccagcta attttttgta
tttttggtac agacagggtt tcaccgtgtt agccaggatg gtcttgatct ctgatctcgg
                                                                   2040
atcogccacc ccggcctcca aagtgctgga ttacaagcgt gagccaccgg gccccgccaa
                                                                   2100
gcagttgctt cttatgcaac atgttgggtg ggacttgtcc acgggccagg ccaataaaat
                                                                   2160
tcttaatcct gcagagaggc agtaccctca tcaccccatc actggaaaac aaatgtttaa
                                                                   2220
                                                                  2280
gctatcaaga gagggaatgt gcagcttggt tctagatgca tggtttggag gatc#cctt
                                                                   2340
tggcctaaag ggaatgtccc aaacaacaga gccttctttg ctgtcactcc agaattctct
acacagaatt tcccaagtcc attcaggaca gacgcgcagt cctctttcaa tggaagaaga
                                                                   2400
gaggactttt cccctcctga aaaatgactg gagtgtgaac aaggcagctc tgtttttcta
                                                                   2460
aataagttgt tottgtgagt tttttctggc cactgggcat ctctgccctc acttttcatc
                                                                   2520
cctgccctct aagctgcaga ccccatgacc acactgtctg cttccttgag cttcccgcac
                                                                   2580
gaggettgea cetgggggae etggagaece tgeggaeaga aetgtggetg agecaetgtg
                                                                   2640
                                                                  2700
gccaactett ggggagetee acagtggggg ttgetggtet gtgaggetgagteteeattt
cagagcacac actocotgge agggcgcotc cgcotgtgto tootgcccag cagcogccag
                                                                   2760
cagggaatag ttgctggtgt ctgagcacaa agagagcttt gattacctag agaggaaaaa
                                                                   2820
```

```
2880
ggctgtcagc cagatgcagc caggcccagg ggtagataca ggagttgcta aggaaggggc
                                                                   2940
cgagccagga gaggccaggc agatccacaa agcccaaggg gatgcaggct gggtgtggtt
                                                                    3000
tctgagggaa cctaccaaat agcaggtaga tggaatcaga ggactcttgt gtcctgaaag
                                                                    3060
aacctcctta aaaacaacta aaaccaagaa cttctggggc tgttcacaca ttgttcaagt
caccccaaga tcgttctggc acgctgagct gaacaccacc atcttgttc attctctctc
                                                                   3120
taatqqqcaa aqcaqqatca tcqaqttqaa aaqttqtaaa taatqaqqat atttatcccq
                                                                    3180
                                                                    3240
ctatttattt tttcaataac tgtgacctcc tgcactgtga atgctctgtg acatgagatt
                                                                    3300
3308
aaaaaaa
<210> 339
<211> 2950
<212> DNA
<213> Homo sapiens
<400> 339
                                                                      60
cccggctccc gcccgctccc agccgggccc cccagcggtc ggcgggacgg ctcccggctg
cagtetgece geeegeeeg egeggggee gagtegegaa geggeetge gaeeeggegt
                                                                    120
ccgggcgcgc tggagaggac gcgaggagcc atgaggcgcc agctgcgaag gtggcggcgc
                                                                     180
tgctgctcgg gctgctcttg gagtgcacag aagccaaaaa gcattgctgg tatttcgaag
                                                                     240
                                                                     300
gactctatcc aacctattat atatgccgct cctacgagga ctgctgtggc tccaggtgct
                                                                     360
gtgtgcgggc cctctccata cagaggctgt ggtacttctg gttccttctg atgatgggcg
                                                                     420
tgcttttctg ctgcggagcc ggcttcttca tccggaggcg catgtacccc ccgccgctga
tegaggagee ageetteaat gtgteetaea eeaggeagee eecaaateee ggeeeaggag
                                                                     480
                                                                    540
cccagcagcc ggggccgccc tattacacyg acccagggg accggggatg aaccctgtcg
qqaattccat qqcaatqqct ttccaqqtcc cacccaactc accccaqqgg agtqtqqcct
                                                                     600
                                                                     660
gcccgccccc tccagcctac tgcaacacgc ctccgccccc gtacgaacag gtagtgaagg
                                                                     720
ccaagtagtg gggtgcccac gtgcaagagg agagacagga gagggccttt ccctggcctt
                                                                     780
tctgtcttcg ttgatgttca cttccaggaa cggtctcgtg ggctgctaag ggcagttcct
                                                                     840
ctgatatect cacageaage acagetetet tteaggettt ceatggagta caatatatga
                                                                     900
actcacactt tgtctcctct gttgcttctg tttctgacgc atctgtgctc tcacatggta
                                                                    960
gtgtggtgac agtccccgag ggctgacgtc ctacggtgg cgtgaccaga tctacaggag
agagactgag aggaagaagg cagtgctgga ggtgcaggtg gcatgtagag gggccaggcc
                                                                    1020
                                                                    1080
gagcatccca ggcaagcatc cttctgcccg ggtattaata ggaagcccca tgccgggcgg
                                                                   T140
ctcagccgat gaagcagcag ccgactgagc tgagcccagc aggtcatctg ctccagcctg
tectetegte ageetteete ttecagaage tgttggagag acatteagga gagageaage
                                                                    1200
cccttgtcat gtttctgtct ctgttcatat cctaaagata gacttctcct gcaccgccag
                                                                    1260
                                                                    1320
gaaagggtag cacgtgcagc tctcaccgca gatggggcct agaatcaggc ttgcttggag
                                                                   1380
gcctgacagt gatctgacat ccactaægca aatttattta aattcatggg aaatcacttc
ctgccccaaa ctgagacatt gcattttgtg agctcttggt ctgatttgga gaaaggactg
                                                                    1440
                                                                    1500
ttacccattt ttttggtgtg tttatggaag tgcatgtaga gcgtcctgcc ctttgaaatc
                                                                   1560
agactgggtg tgtgtcttcc ctggacatca ctgcctctcc agggcattct caggcccgg
ggtctccttc cctcaggcag ctccagtggt gggttctgaa gggtgctttc aaaacggggc
                                                                    1620
                                                                    1680
acatctggct gggaagtcac atggactctt ccagggagag agaccagctg aggcgtctct
                                                                    1740
ctctgaggtt gtgttgggtc taagcgggtg tgtgctgggc tccaaggagg aggagcttgc
tgggaaaaga caggagaagt ætgactcaa ctgcactgac catgttgtca taattagaat
                                                                   1800
                                                                    1860
aaagaagaag tggtcggaaa tgcacattcc tggataggaa tcacagctca ccccaggatc
                                                                    1920
tcacaggtag tctcctgagt agttgacggc tagcggggag ctagttccgc cgcatagtta
tagtgttgat gtgtgaacgc tgacctgtcc tgtgtgctaa gagctatgca gttagctga
                                                                   1980
ggcgcctaga ttactagatg tgctgtatca cggggaatga ggtgggggtg cttattttt
                                                                    2040
                                                                    2100
aatgaactaa tcagagcctc ttgagaaatt gttactcatt gaactggagc atcaagacat
ctcatggaag tggatacgga gtgatttggt gtccatgctt ttcactctga ggacatttaa
                                                                    2160
                                                                   2220
tcggagaacc tcctggggaa ttttgtggga gacacttggg aacaaaacag acaccctggg
                                                                    2280
aatgcagttg caagcacaga tgctgccacc agtgtctctg accaccctgg tgtgactgct
                                                                    2340
gactgccagc gtggtacctc ccatgctgca ggcctccatc taaatgagac aacaaagcac
aatgttcact gtttacaacc aagacaactg cgtgggtcca aacactctc ttcctccagg
                                                                   2400
tcatttgttt tgcattttta atgtctttat tttttgtaat gaaaaagcac actaagctgc
                                                                    2460
```

```
2520
ccctggaatc gggtgcagct gaataggcac ccaaaagtcc gtgactaaat ttcgtttgtc
tttttgatag caaattatgt taagagacag tgatggctag ggctcaacaa ttttgtattc
                                                                   2580
                                                                   2640
ccatgtttgt gtgagacaga gtttgttttc ccttgaactt ggttagaatt gtgctactgt
gaacgctgat cctgcatatg gaagtcccrc ttcggtgaca tttcctggcc attcttgttt
                                                                   2700
ccattqtqtq qatqqtqqqt tqtqcccact tcctqqaqtq agacagctcc tqqtqtqtaq
                                                                   2760
aattcccgga gcgtccgtgg ttcagagtaa acttgaagca gtctgtgca tgcttttcct
                                                                  2820
ctgcaacaat tggctcgttt ctcttttttg ttctcttttg ataggatcct gtttcctatg
                                                                   2880
                                                                   2940
2950
aaaaaaaaq
<210> 340
<211> 1769
<212> DNA
<213> Homo sapiens
<400> 340
agaaaaattg cagggaccca ccccagactt gtgagtgcga gtgaagcagg agcagccctg
                                                                     60
                                                                    120
gccatcactg tttctttgac gtgtacatcc catcctgaga tgcagctggg ctgggagccg
ccacctgggt ggatctgatt cctggatttc cccatcctggggasaggtga cccatcctgt
                                                                   180
tctcctcctt aggtccatgt gaaatctgar gtccttgctg tcaagttgtc acaagaaata
                                                                    240
                                                                    300
aactacgcaa agagcctcta ctatgaacag cagcttatgt taagactcag cgaaaaccga
                                                                    360
gagcagctgg agctggactc ctgaagcccc gctgctgaga tgggcgctcc cgacacagcg
                                                                    420
cagacccacc aggaggaaag aggcccagct ctcagctgac gatggaggca gaaccggagt
cgggtttggg gaagttgtca aggaatgagg gaaagtaaat cctcatgagg aaaagtacaa
                                                                    480
                                                                    540
atggaaatcg tattaatttg tgaggcaggg agttatttta gattatggga aataattttt
aaaggtattg gttaaataac gtttaaaaac atgtætgag atgaatctaa tttttagatt
                                                                    600
                                                                    660
gccctgtatt ttgttaacat gtatatatgt acaacagtgt gtttgtaaat atataggaac
                                                                    720
gtttctgaac agggtctgtg ctatgtgtaa aggtttgtta actgtaaagt aatataaagt
                                                                    780
tatattggat cttctattgc actaattcta gatgtctaat tcaggatact gtctatagaa
                                                                    840
aggcattctt aaaagttaaa gaatgttacg tcttagtttt ggagactaaa gtattcccag
                                                                    900
taaagtgggt tgaggtgagg gctgtggtcc tgaaagggac gcctttgaca tcgtggctgt
ccagttgggc tgtgagctgt ggcacccagg actggcgctg gcccttcaga aggatctagg
                                                                    960
agaggggctt gggagcccac ttttaatttctcacccccat tttacaaaga gtgcttagat
                                                                   1020
tcttacaaat tatgatgtaa gttatccatt tggctttttc ctaactagtc ttaccaaact
                                                                   1080
tagggggaaa cctgtgctcc attaccacat gggtgcaagt cagcattgta agttttctca
                                                                   1140
ggttattatt attagagagg ttggaaacat tggtaaactc tgttgattga gaaggaaaaa
                                                                  1200
aaaagtccca ttgaactgtt gcaacaaatc agaaatccac ataaaagtgc tctcctgcct
                                                                   1260
gggcagcaac aaccaagaac aaagccccgg gactgttttc tttttaataa agccacaggc
                                                                   1320
aggcatcgta gctccacagc ccgaggggac acaggatgga aaccccagga tgagaaggga
                                                                   1380
gcagggagag ttccagaaag ggggatgaaa taggagtatt aaaaagctgc gttggtaagt
                                                                   1440
                                                                   1500
ttttcatgga accaagattt gacaaaggca tctcttatcc ttggttttaa attcctgctg
                                                                   1560
ggagcaaggc ctggtatgag cgccctgggt cttgtttttg gtgtttcgct tttctgtaag
gattaagcag atagggagaa gggaaaaggg gcctcacttt agaatgaatg agtcacttg
                                                                  1620
                                                                   1680
tgatttttaa atttttattt taataaagct aatcaatttc taaaaaaaaa aaaaaaaaa
aaaaaaaggg cggccgctct agaggatccc tcgaggggcc caagcttacc gtgcatgcga
                                                                   1740
                                                                   1769
cggtatagct ctctcctata gtgagccta
<210> 341
<211> 1317
<212> DNA
<213> Homo sapiens
<400> 341
                                                                     60
ccacgcgtcc ggacgccgcc acctccggaa caagccatgg tggcggctac ggtggcagcg
                                                                    120
gcgtggctgc tcctgtgggc tgcggcctgc gcgcagcagg agcaggactt ctacgacttc
                                                                   180
aaggeggtea acateegggg caaactggtg tegetggaga agtacegegg atoggtgtee
                                                                    240
ctggtggtga atgtggccag cgagtgcggc ttcacagacc agcactaccg agccctgcag
```

```
cagetgeage gagacetggg ecceaceae tteaaegtge tegeetteee etgeaaecag
                                                                   300
tttggccaac aggagcctga cagcaacaag gagattgaga gctttgcccg ccgcacctac
                                                                   360
                                                                   420
agtgtctcat tccccatgtt tagcaagatt gcagtcaccg gtactggtgc ccatcctgcc
ttcaagtacc tggcccagac ttctgggaag gagcccacct ggaacttctg gaagtaccta
                                                                   480
gtagccccag atggaaaggt ggtaggggct tgggacccaa ctgtgtcagt ggaggaggtc
                                                                   540
                                                                  600
agaccccaga tcacagcgct cgtgaggaag ctcatcctac tgaagcgag agacttataa
ccaccgcgtc tcctcctcca ccacctcatc ccgcccacct gtgtggggct gaccaatgca
                                                                   660
aactcaaatg gtgcttcaaa gggagagacc cactgactct ccttccttta ctcttatgcc
                                                                   720
attggtccca tcattcttgt gggggaaaaa ttctagtatt ttgattattt gaatcttaca
                                                                   780
                                                                   840
gcaacaaata ggaactcctg gccaatgaga gctcttgacc agtgaatcac cagccgatac
                                                                   900
qaacqtcttg ccaacaaaaa tgtgtggcaa atagaagtat atcaagcaat aatctcccac
ccaaggcttc tgtaaactgg gaccaatgat tacctcatag ggctgttgtg aggattagga
                                                                   960
tgaaatacct gtgaaagtgc ctaggcagtg ccagccaaat aggggcatt caatgaacat
                                                                 1020
                                                                  1080
tttttgcaca taaaccaaaa aataacttgt tatcaataaa aacttgcatc caacatgaat
                                                                  1140
ttccagccga tgataatcca ggccaaaggt ttagttgttg ttatttcctc tgtattattt
                                                                  1200
tcttcattac aaaagaaatg caagttcatt gtaacaatcc aaacaatacc tcacgatata
1260
                                                                  1317
<210> 342
<211> 1677
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (537)..(537)
<223> n equals a,t,g, or c
<400> 342
cccccgggt cgacccacgc gtccggactt tttttatttt agctattcca gggggtttga
                                                                    60
                                                                   120
agtagtactg cattgtgatt ttaatttgca tttccctgat gattaatagt gataagcata
ttttcatata atatttacca tttatttatc ttcttgtttg aaatatctgt tcaagtctta
                                                                   180
tgcccatttt aatgggacag tttttctgtt tattattgat tcatattatt gacttatagt
                                                                   240
aatattttat qaattqatct ctttattatt atqaaatqyt tctttttatt tgtggtaata
                                                                   300
ctcatcatca tgaaatctaa tttgtctgat attattatag ccacttatac ttactgtata
                                                                   360
                                                                   420
cctgattatt ttttccatac ctttatcttc aattatctg tatatttgaa ttcaaagttc
                                                                   480
atctcttgag cctgaaagta ataagcacct tgaacccgga tctttatatc taaatatgat
                                                                   540
tctccagtaa aatttatcag ggttctctgg acaagtggct gattgattgt agagcangga
                                                                    ക
taagaagagt atatgctgaa cctgaatcat ttttgtggtg ccaaaagtaa ggaagtacac
aaaaaaattg agaagatatc awgaaatgca caaaaactaa cctgaagtga ctctyaatga
                                                                    660
ccatatctkg gacaatttga gtaaaaaaat aagtaacaat aatggatgat atcttataag
                                                                   720
                                                                   780
ataatataaa acaaatatca atgagtctat gatgatatag aattagaatg tataaatggg
aggaagggga aaattctttg cttaagcaga ataataatta attaatataa aaagaataat
                                                                   840
ggaaatggta qaaatagaaa gtcaacattt ggcaagcacc acagtaataa ttgttgcagg
                                                                   900
                                                                   960
caagaatcat caatggatgc taaagtttgt gagaaaaagt ttgatgagaa atgggctatt
                                                                1020
tacataacct caaaggcttt tcccacaaga tactgttaat tacaaagggg aaaatattga
                                                                  1080
gaaacatgga agacagcacc ttaaccaaat gattgaagtt aataccatta gtaatgcaac
aaatcagtat cgtgtgcctc ctgatatgat gcactgagaa gggcacaagc atcaccttta
                                                                  1140
                                                                  1200
tggtattctt gcaaaaaatg cataatctaa attcaaccat gaagaaatat tagaaggatg
ttctatgact agtcagtact gctcaaaaat gtcaagatta tgaaagacaa agaaagacta
                                                                  1260
aggtactttc cagatttaaa gaaattaaat agacaggact actaaatgca atatatgagt
                                                                  1320
ctgaattqga ccctqgacta aaattaggca gacagttggt gaattttgag tcaagtctgt
                                                                  1380
                                                                 1440
agagtagtta atagtatttc tggttttgat catcataata tggttattta aga@ttaac
                                                                  1500
atttggtgga tctgggtgaa aagtatatga ggattctctc gcagtatttt tgcaattttt
ttaaatctga aattctttta aaatgagaag ttggctgggc acagtggctc acacctgtaa
                                                                  1560
tcccagcact ttgaaacacc aaggcaggag actcgcttga gcccaggagt ttgagaccat
                                                                  1620
```

```
cctgcgtaag atggcaagac tccatctctt taaaaaaaaa aaaaaaaggg cggccgc
                                                                  1677
<210> 343
<211> 1604
<212> DNA
<213> Homo sapiens
<400> 343
ccacgcgtcc ggcagacaca ggcacttatt cattcatctc attgaaaagc tacgagttgg
                                                                    60
ttccttattg cctctccata atagaaaaac tctttaatga gctctctttt tgttttcaa
                                                                  120
atcagatatg caaagaagct cataacaatt ttttttaaaa atgcaaaaca agaatctcca
                                                                   180
attatgggag caaaatcttc agcttctggg ttcctgtctc actgaggaaa tggatttgaa
                                                                   240
                                                                   300
atggcaagga ggaaatgagg aggcaaactt tcatgtctat tttagttttc caatgcagtc
                                                                   360
ctatttcctt tggactttgt ataaacaagg aaaggacagt tgttagttca gttattacag
ataacctgtg tctttaaagt aaatgtatct taaataagta ggactcccat aaatgactac
                                                                   420
                                                                   480
actttttcaa aatatgactc cccagcttat aacaagaata atagcaaaca tcactttatt
aagcaattac tatgtaaaag acacttagtg cttagcacac actggaaba ttgttgactg
                                                                   540
                                                                    600
gctatatttt ccccagaaat cccatttctg aaagcctatt acaaagaaat aaaatcatca
                                                                    660
gtataacaaa ggagtgtgtg tgtgtgtggg tgtgagtgtg tgtggggtgtg agtgtgtggg
                                                                   720
gtgcacacac atgttgtagt attgttcata gtggcaaaaa ctagaaacaa agtgaatatt
                                                                   780
gataacatgg gcacagatga caaattatat ctccaaatta tgaaacagaa tccagccatt
                                                                   840
aaaatcagag ctttgccacg tgactaggat gaagttacaa aaagtattgt tgagtgagaa
                                                                   900
aagcaggata cataggatac atggaattga gtataatatg attcttttt tttttttt
                                                                   960
gagatggagt ctcgctctgt cactcaggct ggagtgcagt ggcacaatct cagctcactg
                                                                   1020
                                                                   1080
caacctccgc ctcccggatt caagcaattc tcctccctca gcctcctgag tagctgggac
                                                                   1140
taccgtcacc tgccaccacg ccccagctaa tttttgtatt tttagtagag atgggctttc
                                                                   1200
accatattgg tcacgctgat ctcaaaatcc tgacctcagg tgatccacct gcctcagcct
                                                                   1260
cccaaagtgc tgggattaca gtcgtgagcc actgcacctg gccgatttct tttttaaaat
gatcaaaaaa ccatttatat gtgggaatat agctatatac ttttattatt gaattaccat
                                                                   1320
ggaaaaaaac atggaagagg gaggccaagg caggagatc acttgaggcc caggagtttg
                                                                  1380
agaccagcct gggcaacaaa gcgagaccct catctctact aaaaatacaa aaattacctg
                                                                   1440
ggcctggtga cacatgcctg taatcccagc tactcagaag actaaggcaa gtgaatcgct
                                                                   1500
tgaacccgag acgtggaggt tgcagtgaag tgagccaaga tcgcgccgtt gcactccagc
                                                                   1560
                                                                   1604
<210> 344
<211> 1699
<212> DNA
<213> Homo sapiens
<400> 344
acgcgtccgc gccaagggag caggacggag ccatggaccc cgccaggaaa gcaggtgccc
                                                                     60
aggccatgat ctggactgca ggctggctgc tgctgctgct gcttcgcgga ggagcgcagg
                                                                   120
                                                                    180
ccctggagtg ctacagctgc gtgcagaaag cagatgacgg atgctccccg aacaagatga
                                                                    240
agacagtgaa gtgcgcgccg ggcgtggacg tctgcaccga ggccgtgggg gcggtggaga
                                                                    300
ccatccacgg acaattctcg ctggcagtgc ggggttgcgg ttcgggactc cccggcaaga
atgaccgcgg cctggatctt cacgggcttc tggcgttcat ccagctgcag caatgcgctc
                                                                    360
                                                                    420
aggategetg caaegecaag eteaacetea eetegeggge getegaeeeg geaggtaatg
agagtgcata cccgcccaac ggcgtggagt gctacagctg tgtgggcctg agccgggagg
                                                                    480
cgtgccaggg tacatcgccg ccggtcgtgagctgctacaa cgccagcgat catgtctaca
                                                                   540
agggctgctt cgacggcaac gtcaccttga cggcagctaa tgtgactgtg tccttgcctg
                                                                    600
                                                                    660
tccggggctg tgtccaggat gaattctgca ctcgggatgg agtaacaggc ccagggttca
                                                                   720
cgctcagtgg ctcctgttgc caggggtccc gctgtaactc tgacctccgc aacaagacct
                                                                    780
acttctcccc tcgaatccca ccccttgtcc ggctgccccc tccagagccc acgactgtgg
                                                                    840
cctcaaccac atctgtcacc acttctacct cggccccagt gagacccaca tccaccacca
                                                                    900
aacccatgcc agcgccaacc agtcagactc cgagacaggg agtagaacac gaggcctccc
```

```
960
gggatgagga gcccaggttg actg@ggcg ccgctggcca ccaggaccgc agcaattcag
                                                                 1020
ggcagtatcc tgcaaaaggg gggccccagc agccccataa taaaggctgt gtggctccca
                                                                 1080
cagctggatt ggcagccctt ctgttggccg tggctgctgg tgtcctactg tgagcttctc
                                                                1140
cacctggaaa tttccctctc acctacttct ctggccctgg gtacccctct tctcactact
tectgttece accaetggae tgggetggee cageceetgt ttttecaaca tteeceagta
                                                                 1200
                                                                 1260
tccccagctt ctgctgcgct ggtttgcggc tttgggaaat aaaataccgt tgtatatatt
ctgccagggg tgttctagct ttttgaggac agctcctgta tccttctcat ccttgtctct
                                                                 1320
                                                                 1380
ccgcttgtcc tcttgtgatg ttaggacaga gtgagagaag tcagctgtca cggggaaggt
qaqaqaqaq atqctaaqct tcctactcac tttctcctag ccagcctgga ctttggagcg
                                                                 1440
tggggtgggt gggacaatgg ctccccactc taagcactgc ctcccctact ccccgcatct
                                                                 1500
ttggggaatc ggttccccat atgtcttcct tactagactg tgagctcctcgagggcaggg
                                                                1560
acceptgcctt atgtctgtgt gtgatcagtt tctggcacat aaatgcctca ataaagattt
                                                                 1620
1680
aaaaaaaaa aaaaaaaaa
                                                                 1699
<210> 345
<211> 831
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (5)..(5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (10)..(11)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (15)..(15)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (27)..(27)
<223> n equals a,t,g, or c
<400> 345
                                                                   60
catchacggn nacchetact ataggthaag ctggtacgcc tgcaggtacc ggtccggaat
tecegggteg acceaegegt eegggggaaw teceagtega tttttecaag eagtacteeg
                                                                  120
                                                                  180
cttcctggat gtgtttgtct ctcttggctg cactggcctg ctctgctgga gacacatggg
                                                                  240
cttcagaagt tggcccagtt ctgagtaaaa gttctccaag actgataaca acctgggaga
                                                                  300
aagttccagt tggtaccaat ggaggagtta cagtggtggg ccttgtctcc agtctccttg
                                                                 360
gtggtacctt tgtgggcatt gcatacttcc tcacacagct gattttgtg aatgatttag
                                                                  420
acatttctgc cccgcagtgg ccaattattg catttggtgg tttagctgga ttactaggat
caattgtgga ctcatactta ggggctacaa tgcagtatac tgggttggat gaaagcactg
                                                                  480
                                                                  540
gcatggtggt caacagccca acaaataakg caaggcacat agcagggaaa cccattcttg
ataacaacgc agtgaatctg ttttcttctg ttcttattgc cctcttgctc ccaactgctg
                                                                  600
                                                                  660
cttggggttt ttggcccagg gggtgaactt tatttcattt ccmcaggttg aaactgaatg
                                                                  720
ggcagttcat gktaaaatcm cttttcatgg aaagagctct atgtaacagc ataataaaac
                                                                 780
831
gccgctctag aggatccaag cttacgtacg cgtgcatgcg acatcatagc t
```

```
<211> 801
<212> DNA
<213> Homo sapiens
<400> 346
                                                                     60
120
atggggcagg aggtgcacgg atcctgctgg gcactgggag cagggggggg ccaaaggcag
                                                                    180
tgggtgggca ggtccatgcc tcccctggcc ccccagctct gcagggcagt gttcctggtt
                                                                    240
cctatcttgc tgctgctgca ggtgaagcct ctgaacggga gcccaggccc caaagatggg
                                                                   300
agccagacag agaaaacgcc ctctgcagac cagaatcag aacagttcga agagcacttt
                                                                    360
gtggcctcct cagtgggtga gatgtggcag gtggtggaca tggcccagca ggaagaagac
cagtcgtcca agacggcagc tgttcacaag cactctttcc acctcagctt ctgctttagt
                                                                    420
ctggccagtg tcatggtttt ctcaggaggg ccattgaggc ggacattccc aaatatccaa
                                                                    480
                                                                    540
ctctgcttca tgctcactca ctgaccctcc ctccctcctg ggctccaggt cacaactccc
aaaggagatg caggcatggc tctctgcctc tgatcaccat cactgtatct caaggttcag
                                                                    600
                                                                    660
cagcagagat accagttgcc atcagtgcta actgactgcc tctccaggtt cggagtttca
tctcccaggg ccagagacag cagacccaca tcttctctc ccacacctct cctggttttg
                                                                    720
                                                                    780
ttcaggacag cagattagag gcaggaggca atgacaataa aataacgata aaatcctgaa
                                                                    801
aacaaaaaa aaaaaaaaaa a
<210> 347
<211> 1094
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,q, or c
<400> 347
                                                                      60
nacccattga gcagaaggag gccaggtggg aaagctcctg ggaagagcag ccagactgga
cactgggctg cttgagtcct gagtcacaat tcagaattcc tgggctccct gggtgcattc
                                                                     120
                                                                    180
tatcattcca gttgaaagtt tgcttccttc catcatgtg gctcttcatt ctactctcct
tggctctcat ttcagatgcc atggtcatgg atgaaaaggt caagagaagc tttgtgctgg
                                                                     240
acacggette tgccatetge aactacaatg eccaetacaa gaateacece aaataetggt
                                                                     300
                                                                   360
gccgaggcta tttccgtgac tactgcaaca tcatcgcctt ctcccctaac agcaccaatc
                                                                     420
atgtggccct gagggacaca gggaaccagc tcattgtcac tatgtcctgc ctgaccaaag
aggacacggg ctggtactgg tgtggcatcc agcgggactt tgccagggat gacatggatt
                                                                     480
ttacagagct gattgtaact gacgacaaag gaacectggc caatgacttt tggtctggga
                                                                     540
aagacctatc aggcaacaaa accagaægct gcaaggctcc caaagttgtc cgcaaggctg
                                                                    600
accgctccag gacgtccatt ctcatcattt gcatactgat cacgggtttg ggaatcatct
                                                                     660
ctgtaatcag tcatttgacc aaaaggagga gaagtcaaag gaatagaagg gtaggcaaca
                                                                     720
ctttgaagcc cttctcgcgt gtcctgactc caaaggaaat ggctcctact gaacagagt
                                                                   780
                                                                     840
gactgaagat ttttttaatt tagttcataa agtgatgcta caacagaata atcaccatga
                                                                     900
caactggccc acacctcaga gactgattct gatctcccag gaattctgaa ggaccctcta
                                                                     960
tccttgacaa caatcatttg cagccaggta gcaacggcgg tagtcagagg agctatgata
gaccacaccc aagcaaggct gcctcaaat aacatctcaa gatcttagtt cttatgcatt
                                                                   1020
                                                                    1080
ccatcagtca gaagtgaaga agaggtggag aatctggatt ggggaccagg aaatcacttg
                                                                    1094
tattttgtta gcca
<210> 348
<211> 2709
<212> DNA
<213> Homo sapiens
```

<400> 348

```
ggcacgagat ttcctacagg tgaaacgcca tcattaggat tcactgtaac gttagtgcta
                                                                       60
ttaaactcac tagcattttt attaatggcc gttatctaca ctaagctata ctgcaacttg
                                                                      120
gaaaaagagg acctctcaga aaactcacaa tctagcatga ttaagcatgt cgcttggcta
                                                                      180
atottcacca attgcatctt tttctgccct gtggcgtttt tttcatttgc accattgatc
                                                                      240
actgcaatct ctatcagccc cgaaataatg aagtctgtta ctctgatatt ttttccatgc
                                                                      300
ctgcttgcct gaatccagtc ctgtatgttt tcttcaaccc aaagtttaaa gaagactgga
                                                                      360
agttactgaa gcgacgtgtt accaagaaaa gtggatcagt ttcagtttcc bcagtagcc
                                                                     420
aaggtggttg tctggaacag gatttctact acgactgtgg catgtactca catttgcagg
                                                                      480
gcaacctgac tgtttgcgac tgctgcgaat cgtttctttt aacaaagcca gtatcatgca
                                                                      540
aacacttgat aaaatcacac agctgtcctg cattggcagt ggcttcttgc caaagacctg
                                                                      600
agggctactg gtccgactgt ggcacacatt cggcccactc tgattatgca gatgaagaag
                                                                      660
attectttgt eteagacagt tetgaceagg tgeaggeetg tggacgagee tgettetace
                                                                      720
agagtagagg attocotttg gtgcgctatg cttacaatct accaagagtt aaagactgaa
                                                                      780
ctactgtgtg tgtaaccgtt tcccccgtca accaaaatca gtgttatag agtgaaccct
                                                                     840
                                                                      900
attotoatot ttoatotggg aagoaottot gtaatoaotg cotggtgtoa ottagaagaa
ggagaggtgg cagtttattt ctcaaaccag tcattttcaa agaacaggtg cctaaattat
                                                                      960
aaattggtga aaaatgcaat gtccaagcaa tgtatgatct gtttgaaaca aatatatgac
                                                                     1020
ttgaaaagga tcttaggtgt agtagagcaa tataatgtta gttttttctg atccataaga
                                                                     1080
agcaaattta tacctatttg tgtattaagc acaagataaa gaacagctgt taatattttt
                                                                     1140
taaaaattct atttttaaaa tgtgattttc tataactgaa gaaaaatatc ttgctaattt
                                                                     1200
tacctaatgt ttcatccttt aatctcagga caacttactgcagggccaaa aaagggactg
                                                                    1260
tcccagctag acctgtgaga gtatacatag gcattacttt attatgtttt cacttgccat
                                                                     1320
ccttgacata agagaactat aaattttgtt taagcaattt ataaatctaa aacctgaaga
                                                                     1380
tgtttttaaa acaatattaa cagctgttag gttaaaaaaa tagctggaca tttgttttca
                                                                     1440
gtcattatac attgctttgg tccaatcagt aattttttct taagtgtttt gtgattacac
                                                                     1500
tactagaaaa aaagtaaaag gctaattgct gtgtgggttt agtcgatttg gctaaactac
                                                                     1560
taactaatgt gggggtttaa tagtatctga gggatttggt ggcttcatgt aatgttctca
                                                                     1620
ttaatgaata cttcctaata tcgttggctc tactatatt ttccaatttg ctgggatgtc
                                                                    1680
acctagcaat agcttggatt atatagaaag taaactgtgg tcaatacttg catttaatta
                                                                     1740
                                                                     1800
gacgaaacgg ggagtaatta tgacacgaag tacttaatgt ttatttctta gtgagctgga
ttatcttgaa cctgtgctat taaatggaaa tttccataca tcttccccat actattttt
                                                                     1860
ataaaagagc ctattcaata gctcagaggt tgaactctgg ttaaacaaga taatatgtta
                                                                     1920
ttaataaaaa tagaagaaga aagaataaag cttagtcctg tgtcttttaa aaattaaaaa
                                                                     1980
ttttacttga ttccccatct atgggcttta gacctattac tgggtggagt cttaaagtta
                                                                     2040
taattgttca atatgttttt tgaacagtgt gctaaatcaa tagcaaaccc actgccatat
                                                                    2100
tagttattct gaatatacta aaaaaatcca gctagattgc agtttaataa ttaaactgta
                                                                     2160
catactgtgc atataatgaa tttttatctt atgtaaatta tttttagaac acaagttggg
                                                                     2220
aaatgtggct tetgtteatt tegtttaatt aaagetaeet eetaaaetat agtggetgee
agtagcagac tgttaaattg tggtttatat actttttgca ttgtaaatag tctttgttgt
                                                                     2340
acattgtcag tgtaataaaa acagaatctt tgtatatcaa aatcatgtag tttgtataaa
                                                                     2400
atgtgggaag gatttattta cagtgtgttg taattttgta aggccaacta tttacaagtt
                                                                     2460
                                                                    2520
ttaaaaaattg ctatcatgta tattacaca tctgataaat attaaatcat aacttggtaa
gaaactccta attaaaaggt tttttccaaa attcaggtta ttgaaaactt ttcattttat
                                                                     2580
tcatttaaaa actagaataa cagatatata aaagtgttaa tctttgtgct atatggtatg
                                                                     2640
aaatacaata ttgtactcag tgttttgaat tattaaagtt tctagaaagc aaaamaaaa
                                                                    2700
aaaaaaaa
                                                                     2709
<210> 349
<211> 813
<212> DNA
<213> Homo sapiens
<400> 349
ggcacgagat cattttctgt ccctcctat cttaggctga ccggttccct gatgtgttac
                                                                       60
ctgcttctgc tactgatcca aactgcagaa cttctcattc atccccaagg cctccaggca
                                                                     120
                                                                      180
gtatccaatg gggaatcagc tctaaaagga accagaccaa cgttttccag ccccttcatt
ctggtgactg aggggaggaa agaatgggag ggggtattct tgtctagtgg atggaaagga
                                                                      240
```

```
aacacactgt caaattacta tatctccttg gttttctatt acagtagaat tctcægcca
                                                                  300
                                                                   360
tatttttatt gtctatgggg gaagttggag atggtgacct tgattagaag tgtctggagg
                                                                   420
gggataaatg gaggggataa gatttcagtt ggttttggaa aatgttaaag tcttaaaata
atgcgtccca tctgaagaat tttttctaaa accagagttt ataaaaatat cactgataca
                                                                   480
                                                                   540
gcctgccccc tcatttccc gccacaggag atgtcttgga ctagagacac ttgtttaata
                                                                   600
atagcttgtc tctgatattc ccagtagctt ccctctgtgt gaggaaagga tagaaatgtt
                                                                   660
caggacatca tcatacagge tecteateta caaagtteea gtageagtga egeetacaeg
                                                                  720
gaagacttgg aactgcaaac aggctggggt cacctcagtg acatctgacgctgtccaacc
agaagttcga tttttgttct gggggtgaag gaggaaacag actgtactaa aggactaaaa
                                                                   780
                                                                   813
taatttgtct atactaaaaa aaaaaaaaaa aaa
<210> 350
<211> 2288
<212> DNA
<213> Homo sapiens
<400> 350
                                                                    60
ccacgcgtcc gggggctca aggacctgag ctcagcttcc gccccagcca gggaagcggc
aggggaaagc accggctcca ggccagcgtg ggccgctctc tcgctcggtg cccgccgcca
                                                                    120
                                                                    180
tgtgggccgt cctgaggtta gccctgcggc cgtgtgcccg cgcctctccc gccgggccgc
gcgcctatca cggggactcg gtggcctcgc tgggcaccca gccggactg ggctctgccc
                                                                  240
                                                                    300
tctaccagga gaactacaag cagatgaaag cactagtaaa tcagctccat gaacgagtgg
agcatataaa actaggaggt ggtgagaaag cccgagcact tcacatatca agaggaaaac
                                                                    360
tattgcccag agaaagaatt gacaatctca tagacccagg gtctccattt ctggaattat
                                                                    420
cccagtttgc aggttaccag ttatatgaca atgaggaggt gccaggaggt ggcattatta
                                                                    480
caggcattgg aagagtatca ggagtagaat gcatgattat tgccaatgat gccaccgtca.
                                                                    540
                                                                    600
aaggaggtgc ctactaccca gtgactgtga aaaaacaatt acgggcccaa gaaattgcca
tgcaaacagg ctcccctgca tctacttagt tgattcggga gggcatact tacctcgaca
                                                                   660
agcagatgtg tttccagatc gagaccactt tggccgtaca ttctataatc aggcaattat
                                                                    720
gtcttctaaa aatattgcac agatcgcagt ggtcatgggc tcctgcaccg caggaggagc
                                                                    780
                                                                    840
ctatgtgcct gccatggctg atgaaaacat cattgtacgc aagcagggta ccattttctt
                                                                    900
ggcaggaccc cccttggtta aagcggcaac tggggaagaa gtatctgctg aggatcttgg
                                                                    960
aggtgctgat cttcattgca gaaagtctgg agtaagtgac cactgggctt tggatgatca
                                                                   1020
tcatgccctt cacttaacta ggaaggttgt gaggaatcta aattatcaga agaaattgga
tgtcaccatt gaaccttctg aagagccttt atttcctgt gatgaattgt atggaatagt
                                                                  1080
tggtgctaac cttaagagga gctttgatgt ccgagaggtc attgctagaa tcgtggatgg
                                                                   1140
                                                                   1200
aagcagattc actgagttca aagcctttta tggagacaca ttagttacag gatttgctcg
aatatttggg tacccagtag gtatcgttgg aaacaacgga gttctctttt ctgaatctgc
                                                                   1260
aaaaaagggt actcactttg tccagttatg ctgccaaaga aatattcctc tgctgttcct
                                                                   1320
tcaaaacatt actggattta tggttggtag agagtatgaa gctgaaggaa ttgccaagga
                                                                   1380
tggtgccaag atggtggccg ctgtggcctg tgcccaagtg cctaagataa ccctcatcat
                                                                   1440
                                                                  1500
tgggggctcc tatggagccg gaaactatgg gægtgtggc agagcgtata gcccaagatt
tctctacatt tggccaaatg ctcgtatctc agtgatggga ggagagcagg cagccaatgt
                                                                   1560
                                                                   1620
gttggccacg ataacaaagg accaaagagc ccgggaagga aagcagttct ccagtgctga
                                                                   680
tgaagcggct ttaaaagagc ccatcattaa gaagtttgaa gaggaaggaa acccttacta
ttccagcgca agggtatggg atgatgggat cattgatcca gcagacacca gactggtctt
                                                                   1740
gggtctcagt tttagtgcag ccctcaacgc accaatagag aagactgact tcggtatctt
                                                                   1800
caggatgtaa ctggaataaa ggatgttttc tgttggacat gtactgaaaa ttaacacatg
                                                                   1860
tagtagcctt aaaattttag acttctcgaa catgaggctg ttacagtaat ttttttaaca
                                                                  1920
ctgtgcattg tacttttcta ccttaaaaaa atcagtgagg atatttattt aatgaacatc
                                                                   1980
                                                                   2040
aattcctttt aaattttctt agagaaattt ctctgtggct cagttttacc acccataaag
                                                                  2100
cggagacagt aatttatggt atcctttctg acccacaaag tatgaaaagt tctgtaact
                                                                   2160
gtaaactcag ttctgtaatc tgtattattg agatgattaa tataaagttg tattttcact
                                                                   2220
2280
                                                                   2288
 aaaaaaaa
```

```
<211> 3758
<212> DNA
<213> Homo sapiens
<400> 351
ccacgcgtcc gctttttctc aggatgaata ttttcctggc cgactcattg atccttggta
                                                                       60
caaataaact tctggaagac ccagagagag gaaaacacag gagaaattga gcgatgacg
                                                                     120
tacatcaaat accactactc ctcagcaacc atccccagga acctcacttt caatatcacg
                                                                      180
                                                                      240
aagaccatcc gtcaggatga gtggcatgcc ctacacctgc gcagaatgac ggctggcttc
                                                                      300
atgggcatgg cggtggccat catcctcttt ggctggatca tcggcgtgct gggctgctgc
tgggaccgag gccttatgca gtacgtggca ggctgctctt cctcatggga gggaaaacag
                                                                     360
tggaattaaa gagtgtctgc cccagcccgg cagggtgaag taggatgggg aaaacgttct
                                                                      420
                                                                      480
caccagaccc tgggacttct atgctgcagc atcgtgacct gaggggtgga tgcagttgcc
                                                                     540
acagctcttt gaggcaaagg ccccgatgct ctgtggacag cctcaggctt ggatggatt
                                                                      600
tggcagtgag gaacttattg taacagaaga aagtcatcca agatgcctga ggaaagaaac
cttcaattga gccagccggc tggaaaatgt ggccaagaaa accgcagaga ccaatgttcg
                                                                      660
                                                                      720
gaggagaaaa ccagaaagag gggcctgcct ggcccctttg atcctttatg gccgattccg
tggacattgc tgctcctcac gccggcagcc ctctcttgag tacctcaatt gcagtctcca
                                                                     780
gacceteace eegeaggeat teetgggteg gtgteeeagt eggteaeagt eatggateet
                                                                      840
                                                                      900
ctgcagagca gtagaaagtc gggaggggcc cgtgcccatg gtcaggaaag gagcggcagg
                                                                     960
aggaaagagg agcatgagaa ctcagaagaa attgtaccta ctcagaggt ggagtgagga
                                                                     1020
tagacgttcc cagattcaaa ggcatcatga agtgtcatga caagatagaa aagactttgg
gctggccaag aaggaactgg ataaaattat gagtgaggta cagcaggtgg gaacagtgtc
                                                                     1080
                                                                     1140
actgaaccct atcaacagca gagcatgaga acgtgaattc ctgctgctgg ggaggcaatg
aaatgatatq ggccttcaga tgtctatgaa tcctgaccca ccgtgggtgc cagttttcaa
                                                                     1200
gagggcttcc catcaaatat tgtgcgcaaa ggatggatgg atgaaaggaa gagtgagcca
                                                                     1260
                                                                     1320
ataaacgagg gaacgccggg aaaggcagcc tcaagccggt gggccctggc acccccaccg
                                                                    1380
tecetgagea tegageeggt teeegeeeeg geeegaactggeeegegege getegeagee
                                                                     1440
ccgcggcgga acccgagggc ggcggcagcg gttccttgaa cgagccgggg aatctggagg
                                                                     1500
gagcacacag gaaaggcaga gccgcgagct ggaccagcgg caaatctcta gaagatgacg
                                                                     1560
ggttctttaa aacgcttcga aatcactgga agaaaactac agctgggctc tgcctgctga
cctggggagg ccattggctc tatggaaaac actgtgataa cctcctaagg agagcagcct
                                                                     1620
gtcaagaagc tcaggtgttt ggcaatcaac tcattcctcc caatgcacaa gtgaagaagg
                                                                     1680
                                                                     1740
ccactgtttt ctcaatcctg cagcttgcaa aggaaaagcc aggactctat ttgaaaaaaa
                                                                    1800
tgctgcccga ttttacattt atctggcatg gatgtacta ttgtaagaca gattatgagg
                                                                     1860
gacaagccaa gaaactcctg gaactgatgg aaaacacgga tgtgatcatt gttgcaggag
gagatgggac actgcaggag gttgttactg gtgttcttcg acgaacagat gaggctacct
                                                                     1920
tcagtaagat tcccattgga tttatcccac tgggagagac cagtagtttg agtcataccc
                                                                     1980
tctttgccga aagtggaaac aaagtccaac atattactga tgccacactt gccattgtga
                                                                     2040
aaggagagac agttccactt gatgtcttgc agatcaaggg tgaaaaggaa cagcctgtat
                                                                     2100
                                                                     2160
ttgcaatgac cggccttcga tggggatctt tcagagatgc tggcgtcaaa gttagcaagt
actggtatct tgggcctcta aaaatcaaagcagcccactt tttcagcact cttaaggagt
                                                                    2220
                                                                     2280
ggcctcagac tcatcaagcc tctatctcat acacgggacc tacagagaga cctcccaatg
aaccagagga gacccctgta caaaggcctt ctttgtacag gagaatatta cgaaggcttg
                                                                     2340
cgtcctactg ggcacaacca caggatgccc tttcccaaga ggtgagcccg gaggtctgga
                                                                    2400
aagatgtgca gctgtccacc attgaactgt ccatcacaac acggaataat cagcttgacc
                                                                     2460
cgacaagcaa agaagatttt ctgaatatct gcattgaacc tgacaccatc agcaaaggag
                                                                     2520
                                                                     2580
actttataac tataggaagt cgaaaggtga gaaaccccaa gctgcacgtg gagggcacgg
agtgtctcca agccagccag tgcætttgc ttatcccgga gggagcaggg ggctctttta
                                                                    2640
                                                                     2700
gcattgacag tgaggagtat gaagcgatgc ctgtggaggt gaaactgctc cccaggaagc
tgcagttctt ctgtgatcct aggaagagag aacagatgct cacaagcccc acccagtgag
                                                                     2760
cagcagaaga caagcactct gagaccacac tttaggccac cggtgggacc aaaaggaac
                                                                    2820
aggtgcctca gccatcccaa cagtgtcgtc agagggtccc cagggcattt tcatggcaag
                                                                     2880
tacccctctg ccccactcc agcagtgctt cccaaagtgt gctctgtcac ctgctttgca .
                                                                     2940
                                                                     3000
atcggcttcc attagcgcat gttttatttt ggtgtgacgg ttggccctcc taaacacgga
ctttcctcag gctggttcæ gacggaaaag gactttcttc tgttttcttc caaagtgcaa
                                                                    3060
```

<210> 351

```
ccacagtgga gagcccacgg tgggcttagc ctgcctaggc ccttccattt ctcttctttg
                                                                   3120
accytyctay gaattccagy aaagtycatt cctyccctyg tyaccttttc ctatytctay
                                                                   3180
                                                                  3240
gctcctccac aggtgctgct attttgtgag ctccggctcc tgtttagcttttatttcagt
tctaacctca gtccagaaac atatgtgagg ttgtttccct cttcagccac ggctacaata
                                                                   3300
                                                                   3360
ccggaaaatg ctagttttta tttattttt taagtagtgc ttcctaaatg gtttgcatga
                                                                   3420
gagccacctg gggtacatgt tgaaaactta tttggggtct accccaaacc taataaccca
aatttgggga tgggcccag gaatatgcat ttttaaaaag tcatctgccc ttcccaggtg
                                                                   3480
attctgtaag ttgtccctca actgtacttg gagaaatcgt gttttaaagc agtagtccac
                                                                   3540
aaagtattct gctcatgtgc ccccaaaagt attttgaaaa atcatgtata ccctcaccca
                                                                   3600
tctaagttga tatctaaaat tttatctaag ttggtatcta aaattttca tgggaagtta
                                                                  3660
                                                                   3720
3758
actgttacat cactaaaaaa aaaaaaaaa aaaaaaaa
<210> 352
<211> 1534
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1212)..(1212)
<223> n equals a,t,g, or c
<400> 352
tcgaagatag gttcgagacg gtggatgttg cagctgatca tgcagttggg ttcggtgctg
                                                                     60
                                                                    120
ctcacacqct qccccttttg gggctgcttc agccagctca tgctgtacgc tgagagggct
                                                                    180
gaggcacgcc ggaagcccga catcccagtg ccttacct& atttcgacat gggggcagcc
gtgctgtgcg ctagtttcat gtcctttggc gtgaagcggc gctggttcgc gctgggggcc
                                                                    240
gcactccaat tggccattag cacctacgcc gcctacatcg ggggctacgt ccactacggg
                                                                     300
gactggctga aggtccgtat gtactcgcgc acagttgcca tcatcggcgg ctttcttgtg
                                                                     360
ttggccagcg gtgctgggga gctgtaccgc cggaaacctc gcagccgctc cctgcagtcc
                                                                     420
accggccagg tgttcctggg tatctacctc atctgtgtgg cctactcact gcagcacagc
                                                                     480
aaggaggacc ggctggcgta tctgaaccat ctcccaggag gggagctgat gatccagctg
                                                                     540
                                                                    600
ttcttcgtgc tgtatggcat cctggcccct ggctttctg tcaggctact acgtgaccct
cgctgcccag atcctggctg tactgctgcc ccctgtcatg ctgctcattg atggcaatgt
                                                                     660
                                                                     720
tgcttactgg cacaacacgc ggcgtgttga gttctggaac cagatgaagc tccttggaga
gagtgtgggc atcttcggaa ctgctgtcat cctggccact gatggctgag ttttatggca
                                                                    870
agaggctgag atgggcacag ggagccactg agggtcaccc tgccttcctc cttgctggcc
                                                                     840
cagctgctgt ttatttatgc tttttggtct gtttgtttga tcttttgctt ttttaaaatt
                                                                     900
gttttttgca gttaagaggc agctcatttg tccaaatttc tgggcttcag cgcttgggaq
                                                                     960
ggcaggaacc ctggcactaa tgctgta@a ggtttttttc ctgttaggaa gaacttgagg
                                                                   1020
                                                                    1080
ccagctgccc actgagtctt ctgtccctga agaaagggag tattgggcag ggcttgggat
ccggctactg agagtgggag agtgggagac agaggaagga agatggagat tggaagtgag
                                                                    1140
                                                                  1200
caaatgtgaa aaattcctct ttgaacctgg cagatgcagc taaactctgc agtagtgtt
                                                                    1260
ggagactgtg anagggagtg tgtgtgttga cacatgtgga tcaggcccag gaagggcaca
                                                                    1320
ggggctgagc actacagaag tcacatgggt tctcagggta tgccaggggc agaaacagta
ccggctctct gtcactcacc ttgagagtag agcagaccct gttctgctct gggctgtgaa
                                                                    1380
ggggtggagc aggcagtggc cægctttgcc cttcctgctg tctctgtttc tagctccatg
                                                                   1440
gttggcctgg tgggggtgga gttccctccc aaacaccaga ccacacagtc ctccaaaaat
                                                                    1500
                                                                    1534
aaacatttta tatagacaaa aaaaaaaaaa aaaa
<210> 353
<211> 2664
<212> DNA
<213> Homo sapiens
```

<400> 353

```
ggttgctggc ccaggtgagc gggcgcgctg gtccaggtga gcgggcgcgt ccccgcgacg
                                                                       60
gcgctgcctg cccgaggcgg ttcacgtaaa gacagcgaga tcctgagggc cagccgggaa
                                                                      120
                                                                      180
ggaggcgtgg atatggagct ggctgctgcc aagtccgggg cccgccgccgc tgcctagcgc
gtcctgggga ctctgtgggg ægcgccccg cgccgcggct cggggacccg tagagcccgg
                                                                     240
                                                                      300
cgctgcgcgc atggccctgc tctcgcgccc cgcgctcacc ctcctgctcc tcctcatggc
                                                                      360
cgctgttgtc aggtgccagg agcaggccca gaccaccgac tggagagcca ccctgaagac
                                                                     420
catccggaac ggcgttcata agatagacac gtacctgaac gccgccttgg actcctggg
                                                                      480
aggcgaggac ggtctctgcc agtataaatg catgacggat ctaagccttt cccacgttat
ggttataaac cctccccacc gaatggatgt ggctctccac tgtttggtgt tcatcttaac
                                                                      540
attggtatcc cttccctgac aaagtgttgc aaccaacacg acaggtgcta tgaracctgt
                                                                      600
                                                                      660
qqcaaaagca agaatqactg tgatqaagaa ttccagtatt gcctctccaa gatctgccga
                                                                      720
gatgtacaga aaacactagg actaactcag catgttcagg catgtgaaac aacagtggag
                                                                      780
ctcttgtttg acagtgttat acatttaggt tgtaaaccat atctggacag ccaacgagcc
                                                                     840
gcatgcaggt gtcattatga agaaaaaact gatctttaaa ggagatgcg acagctagtg
                                                                      900
acagatgaag atggaagaac ataacctttg acaaataact aatgttttta caacataaaa
ctgtcttatt tttgtgaaag gattattttg agaccttaaa ataatttata tcttgatgtt
                                                                      960
aaaacctcaa agcaaaaaaa gtgagggaga tagtgagggg agggcacgct tgtcttctca
                                                                     1020
                                                                     1080
ggtatcttcc ccagcattgc tcccttactt agtatgccaa atgtcttgac caatatcaaa
aacaagtgct tgtttagcgg agaattttga aaagaggaat atataactca attttcacaa
                                                                     1140
ccacatttac caaaaaaaga gatcaaatat aaaattcatc ataatgtctg ttcaacatta
                                                                     1200
tcttatttgg aaaatgggga aattatcact tacaagtatt tttactat gaaattttaa
                                                                    1260
atacacattt atgcctagaa ggaacggact ttttttttct attttaatta cacataatat
                                                                     1320
gtaattaaag tacaacata'a tatgttgttt ctctgtagcc cgttgagcat atgagtaagt
                                                                     1380
cacatttcta ttaggactac ttmcaaggac aaggtttcca tttttccagt tgtaaaattg
                                                                     1440
                                                                     1500
gaaccatcag ctgataacct cgtagggagc aaccccagga tagctaagtg ttatgtaata
                                                                     1560
tgcctagaag gtgatgtgaa tgcgattcag aagcatagcc actcccattt tatgagctac
                                                                     1620
tcacatgaca aatgtcatct tttgctataa cctttgccaa gttagagaaa agatggattt
aatgagataa atgaaaagat atttamccta atatataag gcactatttg ctgttatgct
                                                                    1680
                                                                     1740
ttgttattta tttcccagca cttgttcctt attgtagatt ttttaaagac tgtaaccttt
                                                                     1800
tactaactgt ggtcttacta aaatttgtgc ttgatactgc ttttcaaaaa gcctttaatt
agagccaaaa ggatggaaaa ggcaagatat aaatgccttt tatagatctc ttatttacat
                                                                     1860
                                                                     1920
tgaaaattat taccatatgt ttagagcaaa tccaagaaaa cttcaacagc ttctgaagat
gtctatgaat gttgaaaact tttcaatctc ttggaatgct cagttatgtt cctagaccgg
                                                                     1980
tctttgctga ctactggttg ttaacctttc cctagcctgg gacctcaagc catatatatc
                                                                     2040
                                                                    2100
ctttgggtga cccatggcca aagttattaagatgaactga ctttcaaagt cagagaagga
                                                                     2160
cagcataggg agaggcggtt atttgtaagt cattacaggt agaacagggc agaaggaaaa
                                                                     2220
gtatgttctg gagaaagggc catgttccta actttggaga tatgtcattg ccgggaacct
                                                                    2280
agtatcttcc aacttgaatt ggtggcagct gttccagtga gacaaggcac atgtatgcct
tgtggctaag tgagcaaact gggtttccac ttaaatgttt gggaccctca attgattctt
                                                                     2340
tatttcaaac ctttataaaa ggtacagttt tgtaagccat tattaataat taatgcttat
                                                                     2400
cggctgggca cagtggctca cacctataat cccagcactt gggaggctga ggcggttgga
                                                                     2460
                                                                     2520
tcacttgagg tcaggagttt gagacagct ggccaacatg gtgaaacagc gtctctacta
                                                                     2580
aaaatacaaa aatttgccgg gcgtggtggc gcatgcttat agtctcagct actcaggaag
                                                                     2640
ctgaggtacg agaatcactt gaacccagga ggtggaggtt gcagtgagct gagattgtgc
                                                                    2664
cactgcactg cagcctggct cgag
<210> 354
<211> 1508
<212> DNA
<213> Homo sapiens
<400> 354
ggcacagaga tagagcggca acctcggaag tgcggacggg tgggcctata tagatgttga
                                                                        60
ggtgcggagg ccgtgggctt ttgttgggcc tggctgtagc cgcagcagcg gtaatggcag
                                                                      120
                                                                      180
cacggcttat gggctggtgg ggtcccgcg ctggctttcg ccttttcata ccggaggagc
tgtctcgcta ccgcggcggc ccaggggacc cgggcctgta cttggcgttg ctcggccgtg
                                                                      240
                                                                      300
tctacgatgt gtcctccggc cggagcacta cgagcctggg tcccactata gcggcttcgc
```

```
360
aggccgagac gcatccagag ctttcgtgac cggggactgt tctgaagcag gcctgtgga
                                                                    420
tqacqtatcc gacctgtcag ccgctgagat gctgacactt cacaattggc tttcattcta
                                                                    480
tgagaagaat tatgtgtgtg ttgggagggt gacaggacgg ttctacggag aggatgggct
                                                                    540
gcccaccccg gcactgaccc aggtagaagc tgcgatcacc agaggcttgg aggccaacaa
actacagctg caagagaaç agacattccc gccgtgcaac gcggagtgga gctcagccag
                                                                    600
gggcagccgg ctctggtgct cccagaagag tggaggtgtg agcagagact ggattggcgt
                                                                    660
ccccaggaag ctgtataagc caggtgctaa ggagccccgc tgcgtgtgtg tgagaaccac
                                                                    720
cggccccct agtggccaga tgccggacaa ccctccacac agaaatcgtggggacctgga
                                                                   780
                                                                    840
ccacccaaac ttggcagagt acacaggetg cccaccgcta gccatcacat gctcctttcc
actctaagcc gtagcctctt ctgttaataa cacacagaga gctctgccaa gcacctgagt
                                                                    900
aggcccttga cacttgtgtg ccctgggatg cctcctggcg cgaatcagga gggtctggaa
                                                                    960
ggactctggc tatattctgc aaatgtggct catgcccctt accgtggctc ggcgttgtgg
                                                                   1020
                                                                   1080
tgcctgaggg acagccggcc acctgcccag tactggtcag cttttcaaca ctattccctt
                                                                   1140
tgacctactg gccatcttcc tcacagccct cagatatcaa cgggcacaaa taagaccaac
tcaatttcca cttgaattta caaccaaaag cctgctgagt tgatacagc tgggccaata
                                                                  1200
cagtacgagg caataacaaa ttagtgtggg ttgattctgg aattggaaaa gcttttgctt
                                                                   1260
gtatggatac agcaaatcca gatgtctctg aacaaagcaa caatttaaag caacgacatt
                                                                   1320
ttctgtcctt taagcactta aaatcaggtg tggtgtgttt tcaaaggcag aagtctgcat
                                                                   1380
tttgagcaaa aggtggcttc ccagctctaa caaggtaact ggttagcatg acattaaagc
                                                                   1440
1500
                                                                   1508
aactcgag
<210> 355
<211> 1076
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1029)..(1029)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1037)..(1037)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1040)..(1040)
<223> n equals a,t,g, or c
<400> 355
                                                                      60
ggcacgaggg gaaagccatg ctcccaggac tccttccttg cagccttaaa tcggtctgta
                                                                     120
cggaaaattc cgcgccttag aaacccacgc ttgggtgtaa cttattattg ttcttcctga
                                                                     180
cctacttcct gtttatcact tccgggttca tcattttggc atttcggtga tcgggttgga
actattgaag cccgctttca ggttcttttc cccattttcc ctttgaaagg aagacttctg
                                                                    240
gcttctccta aatctccgtt ctctgggtaa ggggagtcca agcctctgtc atgaggaacg
                                                                     300
gaaatgcgag ggcctcgggt gttactctaa aatccgccct cagcttgcac gccggaagct
                                                                     360
                                                                    420
gcgattcctg cagcggaaga ggcgtgatct ggccttcgac tcgctatgtc cactacaat
atgtcggacc cacggaggcc gaacaaagtg ctgaggtaca agcccccgcc gagcgaatgt
                                                                     480
                                                                     540
aacccggcct tggacgaccc gacgccggac tacatgaacc tgctgggcat gatcttcagc
                                                                     600
atgtgcggcc tcatgcttaa gctgaagtgg tgtgcttggg tcgctgtcta ctgctccttc
                                                                    660
atcagctttg ccaactctcg gagctcggag gacacgaagc aaatgatgag tagcttcatg
                                                                     720
ctgtccatct ctgccgtggt gatgtcctat ctgcagaatc ctcagcccat gacgccccca
                                                                     780
tggtgatacc agcctagaag ggtcacattt tggaccctgt ctatccacta ggcctgggct
ttggctgcta aacctgctgc cttcagctgc catcctggac ttccctgaatgaggccgtct
                                                                    840
```

```
900
cggtgccccc agctggatag agggaacctg gccctttcct agggaacacc ctaggcttac
                                                                     960
ccctcctgcc tcccttcccc tgcctgctgc tgggggagat gctgtccatg tttctagggg
                                                                    1020
tattcatttq ctttctcgtt gaaacctgtt gttaataaag tttttcactc tgaaaaaaaa
                                                                    1076
aaaaaaaana raaacncgn gggggggccc ggaacccaat tcsccggata gtgagt
<210> 356
<211> 943
<212> DNA
<213> Homo sapiens
<400> 356
ggcacgaget cegeceggee eegagggget eteceeggag geteageece etetgeteee
                                                                      60
                                                                    120
catgggcaac tgccaggcag ggcacaacct gcacctgtgt ctggcccaccacccacctct
                                                                     180
ggtctgtgcc actttgatcc tgctgctcct tggcctctct ggcctgggcc ttggcagctt
                                                                     240
cctcctcacc cacaggactg gcctgcgcac cctgacatcc cccaggactg ggtctctttt
                                                                     300
ttgagatctt ttggccagct gaccctgtgt cccaggaatg ggacagtcac agggaagtgg
                                                                     360
cgagggtete acgtegtggg ettgetgace acettgaact teggagaegg teeagaeagg
                                                                     420
aacaagaccc ggacattcca ggccacagtc ctgggaagtc agatgggatt gaaaggatct
tctgcaggac aactggtcct tatcacagcc agggtgacca cagaaaggac tgcaggaacc
                                                                     480
tgcctatatt ttagtgctgt tccaggaatc ctaccctcca gccgccacc catatcctgc
                                                                    540
                                                                     600
tcagaggagg gggctggaaa tgccaccctg agccctagaa tgggtgagga atgtgttagt
                                                                     660
qtctggagcc atgaaggcct tgtgctgacc aagctgctca cctcggagga gctggctctg
tgtggctcca ggctgctggt cttgggctcc ttcctgcttc tcttctgtgg ccttctctgc
                                                                     720
tgtgtcactg ctatgtgctt ccaccegege egggagteee aetggtetag aacceggete
                                                                     780
                                                                     840
tgagggcact ggcctagttc ccgacttgtt tctcaggtgt gaatcaactt cttgggcctt
                                                                     900
qqctctgagt tggaaaaggt tttagaaaaa gtgaagagct ggaatgtggg ggaaaataaa
                                                                     943
<210> 357
<211> 1566
<212> DNA
<213> Homo sapiens
<400> 357
                                                                      60
cqcqtccqqc qcccqgcagc tqtccaccga tcccqgccac cqcccccggc caccccacc
                                                                     120
ccgcgagccc atggaggctc cgggaccccg cgccttgcgg actgcgctct gtggcggctg
                                                                     180
ttgctgcctc ctcctatgtg cccagctggc tgtggctggt aaaggagctc gaggctttgg
                                                                     240
gaggggagcc ctgatccgcc tgaatatctg gccggcggtc caaggggcct gcaaacagct
ggaggtctgt gagcactgcg tggagggaga cagagcgcgc aatctctcca gctgcatgtg
                                                                      300
ggagcagtgc cggccagagg agccaggaca ctgtgtgoldsymbol{c}c caatctgagg tggtcaagga
                                                                     360
                                                                      420
aggttgctcc atctacaacc gctcagaggc atgtccagct gctcaccacc accccaccta
                                                                      480
tgaaccgaag acagtcacaa cagggagccc cccagtccct gaggcccaca gccctggatt
                                                                      540
tgacggggcc agctttatcg gaggtgtcgt gctggtgttg agcctacagg cggtggcttt
                                                                      600
ctttgtgctg cacttcctca aggccaagga cagcacctac cagacgctgt gagtacctgg
                                                                      660
ccagcagcaa gtacctgagt cccagctcac ctcctggttc ctgccccacc gttccccttc
                                                                      720
agtacccagg gtgctgtctt ctccatgggc aagccctcag gacggtgaca gcgtgctcca
                                                                     780
tgtgagccac acccettttg tetectecag ttggggtgtt teetttgtea gatgttgget
gggaccagga ctcagcctgg gccagtctag gagcccagct gagccctcct gtgtcttttc
                                                                     840
                                                                      900
ccttcatgct gccagcaggg aagagaacca gtaggtgcca gcccaggcaa gcctgtggcc
cgcgtttctg tggctgtggg caggagctgg gccttgtgtc tagttgggtt ttgctctgag
                                                                    960
                                                                    1020
aaggggagct gtgcctgagg ccctctgtgt gccgtgtgtg ctgtggggcg ggtcgccaca
                                                                     1080
gcctgtgtta aagtgtttgc tcttcctctg ctgcctcctc tcgaggcagg gggtccttgg
                                                                     1140
ctggctgagg cagtgtcacc ttcctgagtg tcctctttgg cctctgcaga atctgacccc
                                                                    1200
tttgggcctg gactccatcc tgaggg@aa ggaggatgca gagggtggcc tctgggcacc
                                                                    1260
cttgtgggta agcgggggc gggggcggga aaaactctgg ccgccagttt ttggctcctg
cgggcaccaa gcaggctcag tgtctgatgc ctgacatctc ctcctgtcct gggcctggaa
                                                                     1320
cctgcagctg agaaaatccc tcaaccacct cgtctcctcc atcgcccctg ctgggcccc
                                                                   1380
```

```
cagcctgaca gtgggttgta tgcctgcctc tttccaccaa ctggcctggg cactgcccc
                                                                1440
1500
                                                                1560
1566
<210> 358
<211> 1067
<212> DNA
<213> Homo sapiens
<400> 358
taccggtccg gaattcccgg gtcgacccac gcgtccggcg cccggcagct gtccaccgat
                                                                  60
eceggecace gyecoeggee acceecace egegageeea tggaggetee gggacomge
                                                                120
                                                                 180
gccttgcgga ctgcgctctg tggcggctgt tgctgcctcc tcctatgtgc ccagctggct
                                                                 240
gtggctggta aaggagctcg aggctttggg aggggagccc tgatccgcct gaatatctgg
                                                                 300
ccggcggtcc aaggggcctg caaacagctg gaggtctgtg agcactgcgt ggagggagac
agagegegea atetetecag etgeatgtgg gageagtgee ggeeagagga geeaggacae
                                                                 360
tgtgtggccc aatctgaggt ggtcaaggaa ggttgctcca tctacaaccg ctcagaggca
                                                                 420
tgtccagctg ctcaccacca ccccacctat gaaccgaaga cagtcacaac agggagcccc
                                                                 480
ccagtccctg aggcccacag ccctggattt gackgggcca gctttatcgg agtgtcgtg
                                                                540
                                                                 600
ctggtgttga gcctacaggc ggtggctttc tttgtgctga cttcctcaag gccaaggaca
                                                                 660
gcacctacca gacgctgtga gtacctggcc agcagcaagt acctgagtcc cagctcacyt
ctggttcctg cccacgttcc cttcagtacc cagggtgctg tcttctccac tggcaagccc
                                                                 720
tcaggacggt gacagcgtgc tycatgtgag ccacacccct tttgtctyct ccagttgggg
                                                                 780
tgtttccttt gtcagatgtt ggctgggacc aggactcagc ctgggccagt ctaggagccc
                                                                 840
agctgagccc tcctgtgtct tttcccttca tgctgccagc agggaagaga accagtaggt
                                                                 900
gccagcccag caacctgtgg cccgcgtttc tgtggctgtg ggcagggct gggccttgtg
                                                                960
                                                                1020
tctagttggg ttttgctctg agaaggggag ctgtgctgag gccctctgtg tgccgtgtgt
                                                                1067
gctgtggggc gggtcgccac agcctgtgtt aaagtgtttg ctcttcc
<210> 359
<211> 1021
<212> DNA
<213> Homo sapiens
<400> 359
ggcacgagga ttctaggaca gggatggggg tgcagcactg atccaggacc cagaatggag
                                                                  60
gcatcatgga gggtccccgg ggatggctgg tgctctgtgt gctggccata tcgctggcct
                                                                 120
ctatggtgac cgaggacttg tgccgagcac cagacgggaa gaaaggggag gcaggaagac
                                                                 180
ctggcagacg ggggcggcca ggcctcaagg gggagcaagg ggagcgggg gcccctggca
                                                                240
                                                                 300
tccggacagg catccaaggc cttaaaggag accaggggga acctgggccc tctggaaacc
ccggcaaggt gggctaccca gggcccagcg gccccttcg gagcccgtgg catcccggga
                                                                 360
attaaaggca ccaagggcag cccaggaaac atcaaggacc agccgaggcc agccttctcc
                                                                 420
gccattcggc ggaacccccc aatggggggc aacgtggtca tcttcgacac ggtcatcacc
                                                                 480
                                                                 540
aaccaggaag aaccgtacca gaaccactcc ggccgattcg tctgcactgt acccggctac
tactactica cettecaggt getgteecag tgggaaatet geetgteeat egteteetee
                                                                 600
tcaaggggcc aggtccgacg ctccctgggc ttctgtgacaccaccaacaa ggggctcttc
                                                                660
caggtggtgt cagggggcat ggtgcttcag ctgcagcagg gtgaccaggt ctgggttgaa
                                                                 720
                                                                 780
aaagacccca aaaagggtca catttaccag ggctctgagg ccgacagcgt cttcagcggc
ttcctcatct tcccatctgc ctgagccagg gaaggacccc ctcccccacc cacctctctg
                                                                 840
                                                                 900
gcttccatgc tccgcctgta aaatgggggc gctattgctt cagctgctga agggaggggg
ctggctctga gagccccagg actggctgcc ccgtgacaca tgctctaaga agctcgtttc
                                                                 960
1020
                                                               1021
<210> 360
```

<211> 1086

```
<212> DNA
<213> Homo sapiens
<400> 360
ggattctagg acagggatgg gggtgcagca ctgatccagt tgacaacagg aggcagaggc
                                                                     60
atcatggagg gtccccgggg atggctggtg ctctgtgtgc tggccatatc gctggcctct
                                                                    120
                                                                    180
atggtgaccg aggacttgtg ccgagcacca gacgggaaga aaggggaggc aggaagacct
                                                                    240
ggcagacggg ggcggccagg cctcaagggg gagcaagggg agccgggggc ccctggcatc
cggacaggca tccaaggcct taaaggagac cagggggaac ctgggccctc tggaaacccc
                                                                    300
ggcaaggtgg gctacccagg gcccagcggc ccctcggag cccgtggcat cccgggaatt
                                                                    360
                                                                    420
aaaggcacca agggcagccc aggaaacatc aaggaccagc cgaggccagc cttctccgcc
                                                                    480
attcggcgga accccccaat ggggggcaac gtggtcatct tcgacacggt catcaccaac
                                                                    450
caggaagaac cgtaccagaa ccactccggc cgattcgtct gcactgtacc cggctactac
                                                                    600
tacttcacct tccaggtgct gtcccagtgg gaaatctgcc tgtccatcgt ctcctcctca
                                                                    660
aggggccagg tccgacgctc cctgggcttc tgtgacacca ccaacaaggg gctcttccag
                                                                    720
gtggtgtcag ggggcatggt gcttcagctg cagcagggtg accaggtctg ggttgaaaaa
                                                                    780
gaccccaaaa agggtcacat ttaccaggc tctgaggccg acagcgtctt cagcggcttc
ctcatcttcc catctgcctg agccagggaa ggaccccctc ccccacccac ctctctggct
                                                                    840
                                                                     900
tccatgctcc gcctgtaaaa tgggggcgct attgcttcag ctgctgaagg gagggggctg
                                                                   960
gctctgagag ccccaggact ggctgccccg tgacacatgc tctaagaagc tcgtttctat
                                                                   1020
1080
aaaaaaaaa aaaaaaaaa aaaaaactcg agggggggcc cggtacccaa ttcgccgtat
                                                                    1086
aatgag
<210> 361
<211> 2078
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1177)..(1177)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1187)..(1187)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2057)..(2057)
<223> n equals a,t,g, or c
<400> 361
                                                                      60
ggcacgagga gttgtgcaga tacctggctg agagctggct caccttccag attcacctgc
                                                                     120
aggagetget geagtacaag aggeagaate eageteagtt etgegttega gtetgetetg
gctgtgctgt gttggctgtg ttgggacact atgttccagg gattatgatt tcctacattg
                                                                     180
                                                                     240
tcttgttgag tatcctgctg tggcccctgg tggtttatca tgagctgatc cagaggatgt
                                                                     300
acactegeet ggageeeetg eteatgeage tggaetacag catgaaggea gaageeaatg
                                                                     360
cyctgcatca caaacacgac aagaggaagc gtcaggggaa gaatgcaccc ccaggaggtg
                                                                    420
atgagccact ggmagagaca gagagtgaaa gcgaggcag gctggctggc ttctccccag
                                                                     480
tggtggatgt gaagaaaaca gcattggcct tggccattta cagactcaga gctgtcagat
                                                                     540
gaggaggett etatettgga gagtggtgge tteteegtat eeegggeeac aacteegeag
                                                                     600
ctgactgatg tctccgagga tttggaccag cagagcctgc caagtgaacc agaggagacc
                                                                     660
ctaagccggg acctagggga gggagaggag ggagagctgg cccctcccga agacctacta
ggccgtcctc aagctctgtc aaggcaagcc ctggactcgg aggaagagga agaggatgtg
                                                                     720
```

```
qcaqctaaqq aaaccttgtt gcggctctca tccccctcc actttgtgaa cacgcacttc
                                                                    840
aatqqqqcag qqtccccccm agatggagtg aaægctccc ctggaggacc agtggagaca
                                                                    900
ctgagccccg agacagtgag tggtggcctc actgctctgc ccggcaccct gtcacctcca
                                                                    960
ctttgccttg ttggaagtga cccagccccc tccccttcca ttctcccacc tgttccccag
                                                                   1200
gactcacccc agcccctgcc tgcccctgag gaagaagagg cactcaccac tgaggacttt
gagttgctgg atcaggggga gctggagcag ctgaatgcag agctgggctt ggagccagag
                                                                   1080
acaccgccaa aaccccctga tgctccaccc ctggggcccg acatccattc tytggtacat
                                                                   1140
                                                                   1200
cagaccaaga agctcaggcc gtggcagagc catgagncca gccgttnagg aaggagctgc
aggcacagta gggcttcttg gctaggadg ttgctgtttc ctcctttgcc taccactctg
                                                                   1260
                                                                   1320
gggtggggca gtgtgtgggg aagctggctg tcggatggta gctattccac cctctgcctg
                                                                   1380
cctgcctgcc tgctgtcctg ggcatggtgc agtacctgtg cctaggattg gttttaaatt
                                                                  1440
tgtaaataat tttccatttg ggttagtgga tgtgaacagg gctagggaag tccttccoa
                                                                   1500
agectgcgct tgcctccctg cctcatctct attctcattc cactatgccc caagccctgg
                                                                   1560
tggtctggcc ctttcttttt cctcctatcc tcagggacct gtgctgctct gccctcatgt
                                                                   1620
1680
gctttatttc cctgctgtgt cctgcctta gcagctcaac cccatccttt gccagctcct
                                                                   1740
cctatcccgt gggcactggc caagctttag ggaggctcct ggtctgggaa gtaaagagta
aacctggggc agtgggtcag gccagtagtt acactcttag gtcactgtag tctgtgtaac
                                                                   1800
                                                                  1860
cttcactgca tccttgcccc attcagcccg gcctttcatg atgcaggaga gcgggatcc
                                                                   1920
cgcagtacat ggcgccagca ctggagttgg tgagcatgtg ctctctcttg agattaggag
cttccttact gctcctctgg gtgatccaag tgtagtggga ccccctacta gggtcaggaa
                                                                   1980
                                                                   2040
gtggacacta acatctgtgc aggtgttgac ttgaaaaata aagtgttgat tggctagaaa
                                                                   2078
aaaaaaaaa aaaattmtg cggtccgcaa gggaattc
<210> 362
<211> 2494
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (920)..(920)
<223> n equals a,t,g, or c
<400> 362
                                                                     60
qqaqatqttt aaqqattacc cgccaqccat aaaaccatcc tacgatgtgctgctgctgct
                                                                     120
qctqctqcta qtsytcctsc tgcaggccgg cctcaacacg ggcaccgcca tccagtgygt
                                                                     180
gcgcttcaag gtcagtgcaa ggctgcaggg tgcatcctgg gacacccaga acggcccgca
                                                                     240
ggagcgcctg gctggggagg tggccaggag ccccctgaag gagttcraca aggagaaagc
                                                                    300
ctggagagcc gtcgtggtgc aaatggccca gtgaccccca gacgcggaaa ccgggtggca
gckcccagcc tggccccaag catggaaacg cacaacccct aatcgccctg agctactgct
                                                                     360
                                                                     420
tctaacacct cttttccctt gtgtgagggc aaaccaggct gcaggtgggg ttttcacttc
                                                                    480
ctagggtagt ttaattttaa aataggccaa tgttggctag tctggcctc agtgagatca
qtcaqctccq agtqqctccc gtgtcgtaac agcaggagca tggccgcaac ttcccaggcc
                                                                     540
gaggaagggc ccccggctcg gcctcttgag agccccaccc ctgaactggc cccagctcct
                                                                     600
                                                                     660
cttcctgcct ctctcatggc ttgggctgga gtgggctctc tggacctgac cagactgtgg
                                                                     720
gtccctgcgt ctcctgccca ctctgaccgg gcttcctccc tccacgctta gggtctgtcc
                                                                     780
cgggtactca gtcagcccag tgggatctta cccacttccc tgcaaggtgc acctgcccca
ggctcaggct gcccagcggc tcttcctgga cagtgagagc agggctgggc gcctctgtcc
                                                                     840
                                                                    900
tggcccggga gccgcagggg cccctcctcc agagcctgg cgcaagcgac acaggctgcc
                                                                     960
gctgctctcc aggtgaaatn cacaccagtc cacgccgggt cgcctgccct gtctccctac
                                                                    1020
ttagacccag tcattctaga gggatccamc gccamactgg ccggcccacg tcctgggtgc
tgtcatgccc agcttggagt gccacgtggc cgctgcccac gtcccgggca ctgtcatgcc
                                                                    1080
                                                                   1140
cagcttggag tgccacatgg ccgctgccca cgtcccgggc actgtcatgc ccagcttgga
                                                                   1200
gtgccacgtg gccgctgctg tgacaggcag tgttcttggg ggtggggctg catccaaggc
                                                                   1260
tttgtaaacc ggctggacca cgtctccctg gccccagtga ccgggggaag ctgagcccct
ccctcctgtg tttgctccca ttactcaaaa tg@ggacag atcaggtcag agcccaggaa
                                                                   1320
```

780

```
ttctcacagg ttcacccagc gccctctacc tcctagcaag tactttgtct tgatcctcac
                                                                     1380
                                                                     1440
tgagaaggcc ccagggcagt ggtcttctcc atctccgctg ttttggggtc ttagggtaca
                                                                     1050
qcccaqqcqq tcactqccca cctgccaggc tgcagggaca gttgggtgtg agaataacac
                                                                     1560
tagctttagg tagtgccatg gccaggagtg ggtttccctg cgtctcctcg tcccgagggc
                                                                     1620
gcctgggtcc tcccagctga cggcagtaaa tccacagtga gttggggcga ctgtgaaact
                                                                     1680
ggaatgctgt tactttgata attactttcc agcaggtgtt ttccttcaca atggttttgt
                                                                    1740
ttctttcctt ctgatctgag aagacatga cgttttctct tcaccgccgt ggggtgtatt
                                                                     1800
gactggtccc ccatgggctg ctggaaaggc ccggagatgc atctgtggcc tggggccatc
aagatcaaag aaccaggagg cctgggagat gcagctggat ggggcggcct gcagaccctg
                                                                     1860
ccagggggtt tgaggaccct cccaggtttc ccactgcgga acaggagtga ctctggctg
                                                                    1920
                                                                     1980
caagatacct tcatggtgtt catgacaagt ggaatcatta ttttcaacca ttgaaggggg
atgcaggcaa gacaccttcc cagctgctcc tagaggggac aagccaggcc ctctctgcag
                                                                     2040
                                                                     2100
tcctcggcag ctccggaagg acacagtcag gggccgggca aacactttgg ccacagcccc
                                                                     2160
aaacaagcgc caccgtggga gægagaggc tgctgtcact ggtaccggat gcagacccca
                                                                     2220
ccctgtctgc aggccacccc cacctccctg cagctttgag gctggcgggg tctgctcctg
                                                                     2280
ggaatggggt gggagccaca gggacgaccc ggggcgggct gatgtcttct tgggggcaga
ccagagagct caagtttcag agtcagaatt aggcacttgg agcgtttttg ctgcttgca
                                                                    2340
                                                                     2400
ctttcttatt ttcttattt agagcgctta aaaaatccgg aaaaatgggg tttaaaaagaa
ctgtctcttt cagtctacat ttttgtttaa tacgcttgag caataaacgc tgacttgcag
                                                                     2460
                                                                     2494
acgtgaaaaa aaaaaaaaaa aaaaaaaaac tcga
<210> 363
<211> 807
<212> DNA
<213> Homo sapiens
<400> 363
cccacgcgtc cggacgtcct gatagatcct ctgctccaat aggcaactcc ggccttccct
                                                                       60
gccctgacct ggaacctctg ggagggctgc agagtaagtg ccgcctctgc gctccgacgg
                                                                      120
                                                                     180
aggcacgagg cctgtggagt aggtccctct gttccgacag gtgcgacact tgggctcca
                                                                      240
tgcttgcggg tgccgggagg cctggcctcc cccagggccg ccacctctgc tggttgctct
                                                                      300
gtgctttcac cttaaagctc tgccaagcag aggctcccgt gcaggaagag aagctgtcag
caagcacctc aaatttgcca tgctggctgg tggaagagtt tgtggtagca gaagagtgct
                                                                      360
ctccatgctc taatttcgg gctaaaacta cccctgagtg tggtcccaca ggatatgtag
                                                                      420
                                                                      480
agaaaatcac atgcagctca tctaagagaa atgagttcaa aagctgccgg ttcagctttg
                                                                      540
aatggaacaa cgcttatttt ggaagttcga aaggggctgt cgtgtgtgtg gccctgatct
tcgcttgtct tgtcatcatt cgtcagcgac aattggacag aaaggcttg gaaaaggtcc
                                                                     600
                                                                      660
ggaagcaaat cgagtccata tagctacatt ccacccttgt atcctgggtc ttagagaccc
tatctcagac agtgaaagtg aaatggactg atttgcactc ttggttcttt ggagccttgt
                                                                      720
ggtggaatcc ccttttcccc atcttcttct ttcagatcat taatgagcag aataaaaaga
                                                                      780
gtaaaatggt aaaaaaaaa aaaaaaa
                                                                      807
<210> 364
<211> 845
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (4)..(5)
<223> n equals a,t,g, or c
```

```
<220>
<221> misc_feature
<222> (823)..(823)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (845)..(845)
<223> n equals a,t,g, or c
<400> 364
                                                                        60
ntanntaatg gcacatctcc ccttctattg ggaacacaag ctggagctcc accgcggtgg
cggccgctct agaactagtg gatcccccgg gctgcaggaa ttcggcacga ggtcaaggca
                                                                       120
aaaatgggtc aggtttggag agttccccca ctccttttga gtgttcaggt tttccttacc
                                                                       180
                                                                       240
atggctcatg ctttccatca agcaccagag ttgcagtggc ttggcctctg gttctgggtg
aggttatttg caggtggaga cggggggctg cacctgaaa tttctagtgt caccctccct
                                                                      300
ctccttcatg ggaaacagct ctccagggaa gtaccttcct gccaggggaa gccaaggctg
                                                                       360
ggccggccgc cctacaagga gccacaggat tgcagccatg ggtgccacct ttcatggaag
                                                                       420
                                                                       480
gggagattta tgggctttcc tggaaccccc aggctgtcct ggccaagagg aaagaggtgg
                                                                       540
ttacttcagg agtttgacct tagttagata actaaaagaa tacatttccc ctcccttttc
tttatttcct caataaaaat gtacaaagta tcacccttct ccatgcccca atctgtgtta
                                                                       600
aagtcacaat ctatgggtgt agttctggga ttctgtcaaa ttctccttcc tgctctccaa
                                                                       660
aatggacaat tgtcgtaggg accacatgcc ccagaatac aatggcctct gtgktctact
                                                                      720
                                                                       780
ggggtcaagc ctgctagaac tcagcattca tgacaggggs taagtgtgca tgaaktgaca
                                                                       840
ctgactacag stargaaagc caggcgcaca aatgsccctt tcnccccaag ggccggtctt
                                                                       485
tccan
<210> 365
<211> 738
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (3)..(3)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (8)..(8)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (566)..(566)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (680)..(680)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (684)..(684)
```

<223> n equals a,t,g, or c

```
<220>
<221> misc feature
<222> (703)..(703)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (715)..(715)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (717)..(717)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (731)..(731)
<223> n equals a,t,g, or c
<400> 365
conctgtnet ggccctctat catttgcctg cetttagace tgcctcaagg atatggcage
                                                                     60
gctagccttt agctyccaca gcacggatgg gggtgatgcc agttagaagt gggtagtgaa
                                                                    120
cgtttgctga gctgttcact gtttmtctct tctctttgga agcacctctc cgagccatgt
                                                                    180
                                                                   240
gagccccctg atgccaccga gcaggggcag cttcatgacc atgtctggc tgaggctgtg
                                                                    300
gcggacactc tcggggttgt ctgcaggaga gcaagccagg aggacatggg cctggacgac
                                                                    360
acqqcctcqc agcaaagtgt gtcagacgag cagtgacggg cgtgcggccg ggcggggagg
ctggctcccc cacacctccc acctgcattg ctctccctcg tgctccccaa atcaccacaa
                                                                    420
                                                                    480
ccaaccaata ccgcratcca tgagggactc ctcctgtgga aaaggagagc tgttccagaa
                                                                    540
acccaattcg ccctatagtg agtcgnatta caattcactg gcgtcgtttt acaacgtcgt
                                                                    600
gactgggaaa accctggcgt tacccaactt aatcgcttg cagcacatcc ccctttcgcc
                                                                   660
                                                                    720
agctggcgta ataagcgaan aggnccggac cgatcggcct ttnccaacag ttggngnagc
                                                                    738
ctgaaatggg ngaatggg
<210> 366
<211> 1145
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (9)..(9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (410)..(410)
<223> n equals a,t,g, or c
<400> 366
                                                                     60
caggcagang ggctgagtca caggcacagg tgaggaactc aactcaaact cctctctctg
                                                                    120
ggaaaacgcg gtgcttgctc ctcccggagt ggcttggca gggtgttgga gccctcggtc
                                                                    180
tgccccgtcc ggtctctggg gccaaggctg ggtttccctc atgtatggca agagctctac
tcgtgcggtg cttcttctcc ttggcataca gctcacagct ctttggccta tagcagctgt
                                                                    240
ggaaatttat acctcccggg tgctggaggc tgttaatggg acagatgctc ggttaaaatg
                                                                    030
cactttctcc agctttgccc ctgtgggtga tgctctaaca gtgacctgga attttcgtcc
                                                                    360
```

```
420
tctagacggg ggacctgagc agtttgtatt ctactaccac atagatcccn ttccaaccca
                                                                      480
tgagtgggcg gtttaaggac cgggtgtctt gggatgggaa tcctgagcgg tacgatgcct
                                                                     540
ccatccttct ctggaaactg cagttcgæg acaatgggac atacacctgc caggtgaaga
                                                                      600
acccacctga tgttgatggg gtgatagggg asatccggct cagcgtcgtg cacactgtac
                                                                      660
gettetetga gatecaette etggetetgg ceattggete tgeetgtgea etgatgatea
                                                                     720
taatagtaat tgtagtggtc ctcttccagc attaccggaa aaagcgatgg gccgaaagg
ctcataaagt ggtggagata aaatcaaaag aagaggaaag gctcaaccaa gagaaaaagg
                                                                      780
tctctgttta tttagaagac acagactaac aattttagat ggtaaggttc acaaataggt
                                                                      840
tgatttcttt cttcagcttt ctgacatgtc cagcccatct ctaatgagga ctcccagatc
                                                                      900
atcactttat ggctgttarg tottcccat atgaaattag aggagctggg tcagggagac
                                                                     960
aaaagtcttc tattagtctt atggatagct cctccttgag tgtattttgt gcaaaagatt
                                                                     1020
aagaagctgg actctactgc cattaaagct gagagaatcc taaggttatt tgtggcttcg
                                                                     1080
gggttatatt tattactact actactaata aatattcaac aagtaaataa atttttta
                                                                    1140
aatca
                                                                     1145
<210> 367
<211> 3113
<212> DNA
<213> Homo sapiens
<400> 367
gttattaatg accgctgagc aggcagcacc atgtcagtgt gacaactgaa tcgggtgaac
                                                                       60
                                                                     120
gatgcaccac taaccaccat ggaaacaagg aaaaataaag ccagctcaca ggatctctct
tcactggatt gagagcctca gcctgccgac tgagaaaaag agttccagga aaaagaagga
                                                                      180
atcccggctg cagcctcctg ccttccttta tattttaaaa tagagagata agattgcgtg
                                                                      240
catgtgtgca tatctatagt atatattttg tacactttgt tacacagaca caaaatgca
                                                                     300
cctatttata ccgggcaaga acacaaccat gtgattatct caaccaagga actgaggaat
                                                                      360
                                                                      420
ccagcacgca aggacatcgg aggtgggcta gcactgaaac tgcttttcaa gcatcatgct
                                                                      480
gctattcctg caaatactga agaagcatgg gatttaaata ttttacttct aaataaatga
attactcaat ctcctatgac catctataca tactccacct tcaaaaagta catcaatatt
                                                                      540
                                                                      600
atatcattaa ggaaatagta accttctctt ctccaatatg catgacattt ttggacaatg
                                                                      660
caattgtggc actggcactt atttcagtga agaaaaactt tgtggttcta tggcattcat
catttgacaa atgcaagcat cttccttatc aatcagctcc tattgaatt actagcactg
                                                                     720
actgtggaat ccttaagggc ccattacatt tctgaagaag aaagctaaga tgaaggacat
                                                                      780
                                                                      840
gccactccga attcatgtgc tacttggcct agctatcact acactagtac aagctgtaga
taaaaaagtg gattgtccac ggttatgtac gtgtgaaatc aggccttggt ttacacccaq
                                                                      900
atccatttat atggaagcat ctacagtgga ttgtaatgat ttaggtcttt taactttccc
                                                                      960
agccagattg ccagctaaca cacagattct tctcctacag actaacaata ttgcaaaaat
                                                                     1020
tgaatactcc acagactttc cagtaaacct tactggcctg gatttatctc aaaacaattt
                                                                     1080
atcttcagtc accaatatta atgtaaaaaa gatgcctcag &cctttctg tgtacctaga
                                                                    1140
ggaaaacaaa cttactgaac tgcctgaaaa atgtctgtcc gaactgagca acttacaaga
                                                                     1200
actctatatt aatcacaact tgctttctac aatttcacct ggagccttta ttggcctaca
                                                                     1260
taatcttctt cgacttcatc tcaattcaaa tagattgcag atgatcaaca gtaagtggtt
                                                                     1320
tgatgctctt ccaaatctag agattctgat gattggggaa aatccaatta tcagaatcaa
                                                                     1380
agacatgaac tttaagcctc ttatcaatct tcgcagcctg gttatagctg gtataaacct
                                                                     1440
cacagaaata ccagataacg ccttggttgg actggaaaac ttagaaagca tctcttttta
                                                                     1500
cgataacagg cttattaaag taccccatgt tgctctcaa aaagttgtaa atctcaaatt
                                                                    1560
tttggatcta aataaaaatc ctattaatag aatacgaagg ggtgatttta qcaatatgct
                                                                     1620
acacttaaaa gagttgggga taaataatat gcctgagctg atttccatcg atagtcttgc
                                                                     1680
tgtggataac ctgccagatt taagaaaaat agaagctact aacaacccta gattgtctta
                                                                     1740
cattcacccc aatgcatttt tcagactccc caagctggaa tcactcatgc tgaacagcaa
                                                                     1800
tgctctcagt gccctgtacc atggtaccat tgagtctctg ccaaacctca aggaaatcag
                                                                     1860
catacacagt aaccccatca ggtgtgactg tgtcatccgt tggatgaaca tgaacaaaac
                                                                     1920
                                                                    1980
caacattcga ttcatggagc cagattcact gttttgcgtg gacccacctg aattccaagg
tcagaatgtt cggcaagtgc atttcaggga catgatggaa atttgtctcc ctcttatagc
                                                                     2040
tcctgagagc tttccttcta atctaaatgt agaagctggg agctatgttt cctttcactg
                                                                     2100
```

tagagctact gcagaaccac agcctgaaat ctactggata acaccttctg gtcaaaaact

```
2220
cttgcctaat accctgacag acaagttcta tgtccattct gagggaacac tagatataaa
                                                                  2280
tggcgtaact cccaaagaag ggggtttata tacttgtata gcaactaacc tagttggcgc
                                                                  2340
tgacttgaag tctgttatga tcaaagtgga tggatctttt ccacaagata acaatggctc
                                                                  2400
tttgaatatt aaaataagag atatwaggc caattcagtt ttggtgtcct ggaaagcaag
                                                                  2460
ttctaaaatt ctcaaatcta gtgttaaatg gacagccttt gtcaagactg aaaattctca
                                                                  2520
tgctgcgcaa agtgctcgaa taccatctga tgtcaaggta tataatctta ctcatctgaa
                                                                 2580
tccatcaact gagtataaaa tttgtattga tattcccacc atctatcaga aaaacgaaaa
aaaatgtgta aatgtcacca ccaaaggttt gcaccctgat caaaaagagt atgaaaagaa
                                                                  2640
taataccaca acacttatgg cctgtcttgg aggccttctg gggattattg gtgtgatatg
                                                                  2700
                                                                  2760
tcttatcagc tgcctctctc cagaaatgaa ctgtgatggt ggacacagct atgtgaggaa
ttacttacag aaaccaacct ttgcattagg tgagctttat cctcctctga taaatctctg
                                                                  2820
                                                                  2880
ggaagcagga aaagaaaaaa gtacatcact gaaagtaaaa gcaactgtta taggtttacc
2940
3000
                                                                  3060
aaaaaagatt actttcgaga gagaagttta agcttcacca atggctggct cctggaccaa
                                                                  3113
tgggaaatat gttacaactt tcaggcattt tttaagtgaa ctttttttt ttt
<210> 368
<211> 1651
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1648)..(1648)
<223> n equals a,t,g, or c
<400> 368
ggggacatgt ctgggcacaa ggaaaggcaa gcaatggagg cagcaagagc ccttggcagc
                                                                    60
                                                                   120
aagtttccat cacctttgcc tgccagtgtg tgagaggcgc agaggggcag tgagcaggtg
                                                                  180
acatgcagct tccagatacc cacacatgc ttttctcccg cccagtccc accccagtta
                                                                   240
attgagatgg gattgtttct ctttctggtt tcttcctaag cccctctctc atattcctgg
tgtgcttatg gcctggcaca ccttgtgaaa cagaaaccca agctcctcat ttcggagctg
                                                                   300
ggatttcgat tggctatctg cctccctaac caagctgtcc cttccacctc atccctagag
                                                                   360
                                                                   420
tcaccctctg gtctcatcaa catccagtgg gcatttcagy ggcccaggat ccttcmaatt
qcaqatataa aqcatcaqqa ccccacacct qqqatqqaaq cttctaqqaa ttaatqaaqc
                                                                   480
cccagtagag gtgagggtaa acctaaaacg ggctggatag ggcctctccc aaggccctat
                                                                   540
ggaaaggtga tgggaaactg ggggctgagg cctcatcctaggagacccct ggagggaccc
                                                                  600
                                                                   660
acttacccta gataggcagc ggaggccaga aactggaaaa cagccactca ttgtcggtgc
attaccgtga gcaccacctg tagggactct gttggcctcc agccgtcgtc acacgttcct
                                                                   720
gacaaccaca aaagttcatt tgagggtgcc cagtcagctg actttgcttc caccaggaat
                                                                   780
acceaectgg ceetggteet tetgetgage tacaggagge atteceaggg tettageaaa
                                                                   840
aacaacccct caaataggcc cagtgcctac aactctagag aggtttcaga tggtattgga
                                                                   900
qacccaqaqa aqttaactqa ctttcccaaa aqtcacccac tqtaaatqqc aqacaqatct
                                                                   960
caaacccaca tctgakcctg agtccagtgt ttttctcta gtatcatcat tgtcccttaa
                                                                 1020
atgtgtttga cacatcatag tttacaaatc accttcactc atattctctc actactcatc
                                                                  1080
agtcatgaat tcagccaatg agaagggctc agagaggtta actaaccagc cacgctgttt
                                                                  1140
acatggggca tagactgctt catgaacgct tgactgcagc tttgccttcc tcatgccctc
                                                                  1200
aaaaaggaag gagctgacca aagcttacta taccatagct ggggtctggg acccccagcc
                                                                  1260
aggtctcaca gatgatctgg gaatggcctc cctgttgctc tcaggggtcc ggcagtcaca
                                                                  1320
cagaagagtc aggttgaaat cttggcaaga ctttggtgtg gctttgggaa ctgggtttaa
                                                                  1380
                                                                  1440
cctcttgggg acttcaccaa gacagtgg@ aaggacacca cctacagctt ccagtgcctc
                                                                  1500
tctactctcc cacctgtgct cctggggttg aatgagacca gaagcagctg ggacaagatt
tggaaagata aagagagcca ggagacaaga ccttgagaga agcasaggtc tggctggctg
                                                                  1560
                                                                 1620
ctgscctctg gtggcgacaa tgggtgacac tgtaaacccc tctgcaaggc gacactctcc
cctgactatt caggraggga agaagcantt g
                                                                  1651
```

```
<210> 369
<211> 4909
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2488)..(2488)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2493)..(2493)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (2512)..(2512)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2523)..(2523)
<223> n equals a,t,g, or c
<400> 369
gcgtccggtg gtggcggcgc cgcaagggtg agggcggccccagaacccca ggtaggtaga
gcaagaagat ggtgtttctg cccctcaaat ggtcccttgc aaccatgtca tttctacttt
                                                                      120
                                                                      180
cctcactgtt ggctctctta actgtgtcca ctccttcatg gtgtcagagc actgaagcat
ctccaaaacg tagtgatggg acaccatttc cttggaataa aatacgactt cctgagtacg
                                                                      240
tcatcccagt tcattatgat ctcttgatcc atgcaaacct taccacgctg accttctggg
                                                                      300
gaaccacgaa agtagaaatc acagccagtc agcccaccag caccatcatc ctgcatagtc
                                                                       360
accacctgca gatatctagg gccaccctca ggaagggagc tggagagagg ctatcggaag
                                                                      420
aacccctgca ggtcctggaa caccccctc aggagaaat tgcactgctg gctcccgagc
                                                                      480
ccctccttgt cgggctcccg tacacagttg tcattcacta tgctggcaat ctttcggaga
                                                                       540
                                                                       600
ctttccacgg attttacaaa agcacctaca gaaccaagga aggggaactg aggatactag
                                                                       660
catcaacaca atttgaaccc actgcagcta gaatggcctt tccctgcttt gatgaacctg
                                                                       720
ccttcaaagc aagtttctca atcaaaatta gaagagagcc aaggcaccta gccatctcca
atatgccatt ggtgaaatct gtgactgttg ctgaaggact catagaagac cattttgatg
                                                                       780
tcactgtgaa gatgagcacc tatctggtgg ccttcatcat ttcagatttt gagtctgtca
                                                                       840
gcaagataac caagagtgga gtcaaggtttctgtttatgc tgtgccagac aagatgaatc
                                                                      900
                                                                       960
aagcagatta tgcactggat gctgcggtga ctcttctaga attttatgag gattatttca
gcataccgta tcccctaccc aaacaagatc ttgctgctat tcccgacttt cagtctggtg
                                                                      1020
ctatggaaaa ctggggactg acaacatata gagaatctgc tctgttgttt gatgcagaaa 1080
                                                                     1140
agtcttctgc atcaagtaag cttggcatca caatgactgt ggcccatgaa ctggcccacc
                                                                      1200
agtggtttgg gaacctggtc actatggaat ggtggaatga tctttggcta aatgaaggat
ttgccaaatt tatggagttt gtgtctgtca gtgtgaccca tcctgaactg aaagttggag
                                                                      1260
attatttctt tggcaaatgt tttgcgcaa tggaggtaga tgctttaaat tcctcacacc
                                                                     1320
ctgtgtctac acctgtggaa aatcctgctc agatccggga gatgtttgat gatgtttctt
                                                                     1380
atgataaggg agcttgtatt ctgaatatgc taagggagta tcttagcgct gacgcattta
                                                                      1440
                                                                    1500
aaagtggtat tgtacagtat ctccagaagc atagctataa aaatacaaaa aacgagacc
                                                                     1560
tgtgggatag tatggcaagt atttgcccta cagatggtgt aaaagggatg gatggctttt
                                                                      1620
gctctagaag tcaacattca tcttcatcct cacattggca tcaggaaggg gtggatgtga
aaaccatgat gaacacttgg acactgcaga ggggttttcc cctaataacc atcacagtga
                                                                     1680
                                                                     1740
gggggaggaa tgtacacatg aagcaagagc actacatgaa gggctctgac ggcgccccgg
acactgggta cctgtggcat gttccattga cattcatcac cagcaaatcc gacatggtcc
                                                                      1800
atcgattttt gctaaaaaca aaaacagatg tgctcatcct cccagaagag gtggaatgga
                                                                      1860
```

```
tcaaatttaa tgtgggcatg aatggctatt acattgtgca ttacgaggatgatggggg
                                                               1920
                                                                1980
actctttqac tqqcctttta aaaggaacac acacagcagt cagcagtaat gatcgggcaa
                                                                2040
qtctcattaa caatqcattt cagctcgtca gcattgggaa gctgtccatt gaaaaggcct
                                                                2100
tggatttatc cctgtacttg aaacatgaaa ctgaaattat gcccgtgttt caaggtttga
2160
                                                                2220
aattcaaggc cttcctcatc aggctgctaa gggacctcat tgataagcag acatggacag
                                                                2280
acgagggete agteteagag egaatgetge ggagtgaaet actaeteete geetgtgtge
                                                               2340
acaactatca gccgtgcgta cagagggcag aaggctattt cagaagtgg aaggaatcca
atggaaactt gagcctgcct gtcgacgtga ccttggcagt gtttgctgtg ggggcccaga
                                                                2400
gcacagaagg ctgggatttt ctttatagta aatatcagtt ttctttgtcc agtactgaga
                                                                2460
aaagccaaat tgaatttgcc ctctgcanac ccnaaaataa ggaaaagctt cnatggctac
                                                                2520
tanatgaaag ctttaaggga gataaaataa aaactcagga gtttccacaa attcttacac
                                                                2580
                                                                2640
tcattggcag gaacccagta ggatacccac tggcctggca atttctgagg aaaaactgga
acaaacttgt acaaaagttt gaacttggct catcttccat agcccacatg gtaatgggta
                                                                2700
caacaaatca attctccaca agaacacggc ttgaagagg aaaaggattc ttcagctctt
                                                               2760
                                                                2820
tqaaaqaaaa tggttctcag ctccgttgtg tccaacagac aattgaaaacc attgaagaaa
                                                                2880
acatcggttg gatggataag aattttgata aaatcagagt gtggctgcaa agtgaaaagc
                                                                2940
ttgaacgtat gtaaaaattc ctcccttgcc aggttcctgt tatctctaat caccaacatt
                                                                3000
ttqttqaqtq tattttcaaa ctagagatgg ctgttttggc tccaactgga gatacttttt
tcccttcaac tcattttttg actatccctg tgaaaagaat agctgttagt ttttcatgaa
                                                                3060
tgggctatcg ctaccatgtg ttttgttcat cacaggtgtt gccctgcaac gtaaacccaa
                                                                3120
gtgttgggtt ccctgccaca gaagaataaa gtæcttatt cttctcattt tatagtttat
                                                                3180
gcttaagcac ccgtgtccaa aaccctgtac cccatgttta tcattcataa actgtttcat
                                                                3240
                                                                3300
caqtctcctc gaaagactct gaatagtcga ctactgaaca atgaacacct ggatctgaga
                                                                3630
ctaaqccgga cgatgactgg gttaaagctc tcccggctca cccctccaga cccgctgccc
atccctcttc cttqctccat qcccaqqqqc tgacttgtaa aggccaagtc atcaagcttt
                                                                3420
                                                                3480
cttqcccttt ggatgttggt cagtggggag ccggagagct ggagctgggg tcggaggagg
                                                                3540
tagtaggtgg aggtgttctt ccctgattcc cttgcgggat gcctcgggct ggcctcccct
                                                                3600
gagggtctta gctccgagag gggaccctct tttccacaca gccttctcca cctctggatt
                                                                3660
ttggtaactg ctccctcctc atcccttcag gattagtggc ctcagtggga gtctggcttt
                                                                3720
tactagtect ggeggaettg tggtttetae ataatgtget egeaettttg caaaaaatet
                                                               3780
ttttatagaa ccctcctcag ataattctga gtgtctgtca tctatttccc tgactggta
agtatctctt ctgaaaaagc agagtgcatt caagtctgta ggaaaaccct tttcttaggg
                                                                3840
aggtgatttt ttttctctct ctgcttctta tttggcctac tttacaattt ctaactaact
                                                                3900
agttattggc atttactgac agtaaattat tgcagtcacc aataaatgat agtacattgt
                                                                3960
gaaacaaaat atttgctcat attagcaaat aggacattct ttggctttga agtctttctt
                                                                4020
                                                                4080
ttgtgaagac ttcacacacg gttgcttcag cacacagttg ctgctcaggt tttatgtata
                                                                4140
4200
tcagttaata ccctaagaat tagattttat ttcttattct gaaaacttgc taæcaggga
cttatctaac ccatagtgtg ctctgttgct gacttgattc aagttgcagc gtgttttgcg
                                                                4260
ctgactctaa ggtgcggaaa tcctcacacc tggcaaagga gaattcaaac tgaacttttt
                                                                4320
gaatataagg caaaaacttc aagataaggg aatatgattg atgattggta cgaaaaatgt
                                                                4380
caaaaatgtg ttcccctaat acacgacaaa atagagtgac ttctggacat aaatctgcca
                                                                4440
                                                                4500
tttattaaac cattcactac aacaaataaa taggtataaa agtggaattg gaatttttat
acttatttgt tgtagtgaat ggtttaataa aaatagaaat cactggtaat ttccacccca
                                                                4560
aactaaacta tttcccttct tttaaaaaaa tacacaacca agattttat gtaaaatatt
                                                               4620
                                                                4680
ttgctttaat tgtattttat gccttgatta atgaaacatg gaaatattga ttttcagttt
                                                                4740
tggtcacctg aggaacctat ctttgtttgc ttttggaaaa gcccattttc taaacagata
caatattgcc acaacaatgt gcagaaacct ttttgataat aaaaaattgt tctttgcctc
                                                                4800
4860
                                                                4909
```

```
<210> 370
<211> 2242
<212> DNA
```

<sup>&</sup>lt;213> Homo sapiens

```
60
tegacecacg egteeggget gecatggegg eggegggeeg geteeegge teetgggeee
                                                                    120
tettetegee geteetegea gggettgeae taetgggagt egggeeggte eeagegeggg
                                                                    180
cgctgcacaa cgtcacggcc gagctctttg gggccgaggc ctggggcacc cttgcggctt
                                                                     240
tcggggacct caactccgac aagcagacgg atctcttcgt gctgcgggaa agaaatgact
                                                                    300
taatcgtctt tttggcagac cagaatgcac cctattttaa acccaaagta aaggtatctt
                                                                     360
tcaagaatca cagtgcattg ataacaagtg tagtccctgg ggattatgat ggagattctc
aaatggatgt ccttctgaca tatcttccca aaaattatgc caagagtgaa ttaggagctg
                                                                     420
ttatcttctg gggacaaaat caaacattag atcctaacaa atgaccata ctcaatagga
                                                                    480
                                                                    540
cttttcaaga tgagccacta attatggatt tcaatggtga tctaattcct gatatttttg
                                                                     600
gtatcacaaa tgaatccaac cagccacaga tactattagg agggaattta tcatggcatc
cagcattgac cactacaagt aaaatgcgaa ttccacattc tcatgcattt attgatctga
                                                                    660
ctgaagattt tacagcagat ttattcctga cgacattgaa tgccaccact agtaccttcc
                                                                    720
                                                                    780
agtttgaaat atgggaaaat ttggatggaa acttytstgw magtacymta ttggaaaaac
                                                                    840
ctcaaaatat gatggtggtt ggacagtcag catttgcaga ctttgatgga gatggacaca
tggatcattt actgccaggc tgtgaagata aaaattcca aaagagtacc atctacttag
                                                                    900
tgagatctgg gatgaagcag tgggttccag tcctacaaga tttcagcaat aagggcacac
                                                                    960
                                                                   1020
tctggggctt tgtgccattt gtggatgaac agcaaccaac tgaaatacca attccaatta
                                                                   1080
cccttcatat tggagactac aatatggatg gctatccaga cgctctggtc atactaaaga
acacatctgg aagcaaccag caggcctttt tactggagaa cgtcccttgt aataatgcaa
                                                                   1140
gctgtgaaga ggcgcgtcga atgtttaaag tctactggga gctgacagac ctaaatcaaa
                                                                   1200
                                                                   1260
ttaaggatgc catggttgcc accttctttg acatttacga agatggaatc ttggacattg
                                                                   1320
tagtgctaag taaaggatat acaaagaatgattttgccat tcatacacta aaaaataact
                                                                   1380
ttgaagcaga tgcttatttt gttaaagtta ttgttcttag tggtctgtgt tctaatgact
gtcctcgtaa gataacaccc tttggagtga atcaacctgg accttatatc atgtatacaa
                                                                   1440
ctgtagatgc aaatgggtat ctgaaaaatg gatcagctgg ccaactcagc caatccgcac 1500
                                                                   1560
atttagctct ccaactacca tacaacgtgc ttggtttagg tcggagcgca aattttcttg
                                                                   1620
accatctcta cgttggtatt ccccgtccat ctggagaaaa atctatacga aaacaagagt
                                                                   1680
ggactgcaat cattccaaat tcccagctaa ttgtcattcc ataccctcac aatgtccctc
                                                                   1740
gaagttggag tgccaaactg tatctacac caagtaatat tgttctgctt actgctatag
                                                                   1800
ctctcatcgg tgtctgtgtt ttcatcttgg caataattgg cattttacat tggcaggaaa
                                                                   1860
agaaagcaga tgatagagaa aaacgacaag aagcccaccg gtttcatttt gatgctatgt
gacttgcctt taatattaca taatggaatg gctgttcact tgattagttg aaacaæaat
                                                                  1920
tctggcttga aaaaataggg gagattaaat attatttata aatgatgtat cccatggtaa
                                                                   1980
                                                                   2040
ttattggaaa gtattcaaat aaatatggtt tgaatatgtc acaaggtctt ttttttaaa
gcactttgta tataaaaatt tgggttctct attctgtagt gctgtacatt tttgttcctt
                                                                   2100
tgtggaatgt gttgcatgta ctccagtgtt tgtgtattta taatcttatt tgcatcatga
                                                                   2160
2220
                                                                   2242
aaaaaaaaa aagggcggcc gc
<210> 371
<211> 2381
<212> DNA
<213> Homo sapiens
<400> 371
ccacgcgtcc cgcaaggcca gttctagtgt agagagaaaa aggagccggc agcggctctt
                                                                      60
acgcgtcccg gggctgcgcg ccactctctc ggccggtaac gcggtgcttt gcggctgtcg
                                                                     120
tcaagcgcgg cgttgggccg gcgggcgggg gctgaggggc tgccatggcg gcggcgggcc
                                                                    180
ggctcccgag ctcctgggc ctcttctcgc cgctcctcgc agggcttgca ctactgggag
                                                                    240
                                                                    300
tcgggccggt cccagcgcgg gcgctgcaca acgtcacggc cgagctcttt ggggccgagg
cctggggcac ccttgcggct ttcggggacc tcaactccga caagcagacg gatctcttcg
                                                                    360
                                                                   420
tgctgcggga aagaaatgac ttaatcgtct ttttggcaga ccagaatgcaccctatttta
aacccaaagt aaaggtatct ttcaagaatc acagtgcatt gataacaagt gtagtccctg
                                                                    480
                                                                    540
gggattatga tggagattct caaatggatg tccttctgac atatcttccc aaaaattatg
ccaagagtga attaggagct gttatcttct ggggacaaaa tcaaacatta gatcctaaca
                                                                    600
atatgaccat actcaatagg acttttcaag atgagccact aattatggat ttcaatggtg
                                                                    660
```

<400> 370

```
gagggaattt atcatggcat ccagcattga ccactacaag taaaatgcga attccacatt
                                                                     780
                                                                    840
ctcatgcatt tattgatctg actgaagatt ttacagcaga tttatcctg acgacattga
                                                                     900
atgccaccac tagtaccttc cagtttgaaa tatgggaaaa tttggatgga aacttctctg
                                                                     960
tcagtactat attggaaaaa cctcaaaata tgatggtggt tggacagtca gcatttgcag
                                                                    1020
actttgatgg agatggacac atggatcatt tactgccagg ctgtgaagat aaaaattgcc
                                                                    1080
aaaagagtac catctactta gtgagatctg ggatgaagca gtgggttcca gtcctacaag
atttcagcaa taagggcaca ctctggggct ttgtgccatt tgtggatgaa cagcaaccaa
                                                                    1140
ctgaaatacc aattccaatt accettcata ttggagacta caatatggat ggctatccag
                                                                    1200
acgctctggt catactaaag aacacatctg gaagcaaca gcaggccttt ttactggaga
                                                                   1260
                                                                    1320
acgtcccttg taataatgca agctgtgaag aggcgcgtcg aatgtttaaa gtctactggg
                                                                    1380
agctgacaga cctaaatcaa attaaggatg ccatggttgc caccttcttt gacatttacg
aagatggaat cttggacatt gtagtgctaa gtaaaggata tacaaagaat gattttgcca
                                                                    1440
ttcatacact aaaaaataac tttgaagcag atgcttattt tgttaaagtt attgttctta
                                                                    1500
gtggtctgtg ttctaatgac tgtcctcgta gataacaccc tttggagtga atcaacctgg
                                                                    1560
accttatatc atgtatacaa ctgtagatgc aaatgggtat ctgaaaaatg gatcagctgg
                                                                    1620
ccaactcagc caatccgcac atttagctct ccactacca tacaacgtgc ttggtttagg
                                                                   1680
tcggagcgca aattttcttg accatctcta cgttggtatt ccccgtccat ctggagaaaa
                                                                    1740
                                                                    1800
atctatacga aaacaagagt ggactgcaat cattccaaat tcccagctaa ttgtcattcc
ataccetcae aatgteecte gaagttggag tgeeaaactg tatettaeae caagtaatat
                                                                    1680
tgttctgctt actgctatag ctctcatcgg tgtctgtgtt ttcatcttgg caataattgg
                                                                    1920
cattttacat tggcaggaaa agaaagcaga tgatagagaa aaacgacaag aagcccaccg
                                                                    1980
                                                                    2040
gtttcatttt gatgctatgt gacttgcctt taatattaca taatggaatg gctgttcact
                                                                   2100
tgattagttg aaacacaaat tctggcttga aaaaataggg gagattaaat attatttata
                                                                    2160
aatgatgtat cccatggtaa ttattggaaa gtattcaaat aaatatggtt tgaatatgtc
acaaggtctt tttttttaaa gcactttgta tataaaaatt tgggttctct attctgtagt
                                                                    2220
gctgtacatt tttgttcctt tgtggaatgt gttgcatgta ctccagtgtt tgtgtattat
                                                                   2280
taatcttatt tgcatcatga tgatggaaaa agttgtgtaa ataaaaataa ttaaatgagc
                                                                    2340
                                                                    2381
<210> 372
<211> 2921
<212> DNA
<213> Homo sapiens
<400> 372
ccacgcgtcc ggatttctga ggttctgcaa acaggccacc ctgcagttct gtgtggtgaa
                                                                     60
gccactcatg gcggtcagca ctgtggtcct ccaggccttc ggcaagtacc gggatgggga
                                                                     120
ctttgacgtc accagtggct acctctacgt gaccatcatc tacaacatct ccgtcagcct
                                                                     180
                                                                    240
ggccctctac gccctcttcc tcttctactt cgccacccgg gagctgctca gcccctaæg
                                                                     300
ccccgtcctc aagttcttca tggtcaagtc cgtcatcttt ctttccttct ggcaaggcat
gctcctggcc atcctggaga agtgtggggc catccccaaa atccactcgg cccgcgtgtc
                                                                     360
                                                                     420
ggtgggcgag ggcaccgtgg ctgccggcta ccatgacttc atcatctgtg tggagatgtt
ctttgcagcc ctggccctgc ggcacccctt cacctacaac gtctatgctg acaagaggct
                                                                    480
ggacgcacaa ggccgctgtg cccccatgaa gagcatctcc agcagcctca aggagaccat
                                                                     540
gaaccegcac gacategtge aggacgecat ceacaactte teacetgeet accageagta
                                                                     600
cacgcagcag tccaccetgg agcetgggcc cacetggcgt ggtggcgccc agcetete
                                                                    660
                                                                     720
ccgctcccac agcctcagtg gcgcccgcga caacgagaag actctcctgc tcagctctga
tgatgaattc taggtgcggg ctgcagtggc ggaagtgctg gcgccatagc cacggtcagg
                                                                     780
ctgtgcccca cctccagcct caccaccagg ccaggaggca gctggcacag tgctcacgcc
                                                                     840
gcctttattt attggæcag aaacactcac atgtcgcttc cagaggaacg ggggacagcc
                                                                     900
                                                                     960
aggetegeee atgggeette aggaatattt atacatggee eageetgeae tgeeegggeg
                                                                    1020
agggcagagg acactgggag caaggcttat gcccctgctg cccgtcctgt gctgggggca
tgctgggacc agccgcaccc aggccccaat gcttgtgtgt ggaccaggg ctgcagcctt
                                                                   1080
```

atctaattcc tgatattttt ggtatcacaa atgaatccaa ccagccacag atactattag

720

1140 1200

1260

ctagececte eteccegega gaeteteagg etgaggtegg caageegtgg eteccecaea

caccgtgcaa taccctgtct gacctgggct cttcccgcct gcatcccttc cctgtccacc tttgtccagt gctagattca cctcaccccg ggcaggagtg gggatgtggg cgctctgtgg

```
1320
tectecete etgacecagg cetetgtgge atgetgeaag gateagagee agacaceagg
                                                                     1380
agtcacagge eccaeceagg aagggeatte agggeeeetg ggeacegett etgttgaage
                                                                     1440
aggggcttct gggcccctgg gtatccccac ctgtcgtggc cacacctctg cctgcctcat
gccccttccc ctggcctacc aaggacagcc cacagcccgc atgccggct cacttgggtc
                                                                    1500
                                                                    1560
cttcctcgat agctttgggc agagecettg ettectgget getteaggge teaggggete
ccagccctcc ttcccaggct gatgctgggt cctctctct tttggggctt ctccctccg
                                                                     1620
tttcagggga aaggtctgag tctccacgtt tcagaccagc ttctggggga aggcagtccg
                                                                     1680
gcagggagac cgggagggt ggccacacag tggggagctg ggaggtgggg ggaatggtcc
                                                                    1740
cagactecte teggggeece tatecaeaca gggeetggtg ttetaeceea tetggeecet
                                                                     1800
                                                                     1860
ggcccatctc ttctgtgcct tagtcacata tgaaagcgcc cctccctggc tccccatctg
toccacaege tecetgggge tettagttea getgetggea etegeaggat cetgeagtge
                                                                    1920
tgggcccaga gcccttggac aggcctcagg agtggtcagg accaccaagc ccctcctctc
                                                                     1980
cccctccaca cctctagacc tggggcctcc ggaaccccca gcaggctggg cttatactag
                                                                     2040
ctcctgactt aggaagagcc tcgtgtcaca acacgtgtcc ctacaggcaa agtgtcctgg
                                                                     2100
catttaaaac ccagattatc cctgggtttg ggctgcagtc acctggagaa gctggtaggg
                                                                     2160
taagggagag ggaccctgcc ggtgttcatg gggattcttt cttttggtcc ttcctggaat
                                                                    2220
gaacaggttc cctccctgcc acctgtgagg agagttgggg cccagccgtc ttcctggcct
                                                                    2280
cetteettte etegtggeag aggeetgeat gtgggtgeea gaggeeaget eteceeetee
                                                                    2340
atcttggggg ggcggagcag ttgggcccaa gctgcccggg agggtgggtg cagacacagg
                                                                    2400
ctgaggacca gccctggccc tgccccgcca tctgctttca ccaagctgtc tctccaccqt
                                                                     2460
ggcttccctt ctccctccag gccaaagtgc tgctgattcc cactcccttg gttttcgcct
                                                                   2520
                                                                     2580
gcccagcgtt gctgtttgcg tggagggtgg ggggagctca gtggcaggga atcagcggtc
                                                                     2640
cgtggggtcg tggggacggg aacatgtgcc cgaccgctcc atcccctcct cctccttagg
atgcataacc taccttgtct ttttttttt aattttcttt ccaggtagag tagctctttg
                                                                    2700
tacataaaga atacttgaaa aattættgt atgatgtatg agaagacaga gtctcctagt
                                                                    2760
tttgtatctt gttgtatgac tgccatgagt tccaccagaa agccactcta ttttggtctc
                                                                    2820
tgtgacattt taaatgcgtg acagaagtga gcaaataaag tgaggaagaa atctaaaaaa
                                                                    2880
                                                                   2921
aaaaaaaaa aaaaaaaaaa aaaaaaaaa g
<210> 373
<211> 1259
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (4)..(4)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (18)..(18)
<223> n equals a,t,g, or c
<400> 373
gggntacaaa agctgganct ccaccgcggt ggcggccgct ctagaactag tggatccccc
                                                                      60
gggctgcagg aattcggcac gagtccacac agggcctggt gttctacccc atctggcccc
                                                                      120
tggcccatct cttctgtgcc ttagtcacat atgaaagcgc ccctccctgg ctccccatct
                                                                      180
gtcccacacg ctccctgggg ctcttagttc agctgctggc actcgcagga tcctgagtg
                                                                    240
ctgggcccag agcccttgga caggcctcag gagtggtcag gaccaccaag cccctcctct
                                                                      300
ccccctccac acctctagac ctggggcctc cggaaccccc agcaggctgg gcttatacta
                                                                      360
gctcctgact taggaagagc ctcgtgtcac aacacgtgtc cctacaggca aagtgtcctg
                                                                      420
gcatttaaaa cccagattat ccctgggttt gggctgcagt cacctggaga agctggtagg
                                                                     480
gtaagggaga gggacctgc cggtgttcac tggggattct ttcttttggt ccttcctgga
                                                                     540
                                                                      600
atgaacaggt tecetecetg ceacetgtga ggagagttgg ggeecageeg tetteetgge
                                                                    660
ctccttcctt tcctcgtggc agaggcctgc atgtgggtgc cagaggccagctctcccct
ccatcttggg ggggcggagc agttgggccc aagctgcccg ggagggtggg tgcagacaca
                                                                     720
```

```
ggctgaggac cagccctggc cctgccccgc catctgcttt caccaagctg tctctccacc
                                                                    780
                                                                    840
gtggcttccc ttctccctcc aggccaaagt gctgctgatt cccactccct tggttttcgc
                                                                    900
ctgcccagcg ttgctgtttg cgtggagggt ggggggagct cagtggcagg gaatcagcgg
tccgtggggt cgtggggacg ggaacatgtg cccgaccgct ccatcccctc ctcctta
                                                                    960
                                                                   1020
ggatgcataa cctaccttgt ctttttttt ttaaattttc tttccaggta gagtagctct
ttgtacataa agaatacttg aaaaattaat tgtatgatgt atggaagac agagtctcct
                                                                  1080
                                                                   1140
agttttgtat cttgttgtat gactgccatg agttccacca gaaagccact ctattttggt
ctctgtgaca ttttaaatgc gtgacagaag tgagcaaata aagtgaggaa gaaatctata
                                                                   1200
1259
<210> 374
<211> 1314
<212> DNA
<213> Homo sapiens
<400> 374
                                                                     60
atgcggcagc tcttctatga ccctgacgag tgcgggctga tgaagaaggg gggcttgtac
                                                                    120
ttcagtgact tctggaataa gctggacgtc ggcgcaatct tgctcttcgt ggcagggctg
acctgcaggc tcatcccggc gacgctgtac cccgggcgcg tcacctctc tctggacttc
                                                                   180
                                                                    240
atcctgttct gcctccggct catgcacatt tttaccatca gtaagacgct ggggcccaag
atcatcattg tgaagcggat gatgaaggac gtcttcttct tcctcttcct gctggctgtg
                                                                    300
tgggtggtgt ccttcggggt ggccaagcag gccatcctca tccacaacga gcgccgggtg
                                                                    360
gactggctgt tccgagggcc gtctaccact cctacctcac catcttcggg cagatcccgg
                                                                    420
gctacatcga cggtgtgaac ttcaacccgg agcactgcag ccccaatggc accgacccct
                                                                    480
                                                                    540
acaagcctaa gtgccccgag agcgacgcga cgcagcagag ccggccttcc ctgagtggct
                                                                    600
gacggtcctc ctactctgcc tctacctgct cttcaccac atcctgctgc tcaacctcct
                                                                     660
catcgccatg ttcaactaca ccttccagca ggtgcaggag cacacggacc agatttggaa
                                                                     720
gttccagcgc catgacctga tcgaggagta ccacggccgc cccgccgtgc cgcccccgtt
                                                                     780
gatcctcttc agccacctgc agctcttcat caagagggtg gtcctgaaga ctccggccaa
                                                                     840
gaggcacaag cagctcaaga acaagctgga gaagaacgag gaggcggccc tgctatcctg
                                                                     900
ggagatctac ctgaaggaga actacctcca gaaccgacag ttccagcaaa agcagcggcc
cgagcagaag atcgaggaca tcagcaataa ggttgacgcc atggtggacc tgctggacct
                                                                     960
ggacccactg aagaggtcgg gctccatgga gægaggttg gcctccctgg aggagcaggt
                                                                   1020
ggcccagaca gcccgagccc tgcactggat cgtgaggacg ctgcgggcca gcggcttcag
                                                                   1080
                                                                   1140
ctcggaggcg gacgtcccca ctctggcctc ccagaaggcc gcggaggagc cggatgctga
gccgggaggc aggaagaaga cggaggagcc gggcgacagc taccacgtga atgcccggca
                                                                   2100
                                                                    1260
cctcctctac cccaactgcc ctgtcacgcg cttccccgtg cccaacgaga aggtgccctg
                                                                    1314
ggagacggag ttcctgatct atgacccacc cttttacacg gcagagagga agga
<210> 375
<211> 468
<212> DNA
<213> Homo sapiens
<400> 375
                                                                     60
qtgagaagat aatcctgaga ggctgcatcc taggaaatac cagctggtgt tttggaatgg
                                                                     120
ttatttttgc aggtcctgac actaaactaa tgcagaatag tggtaagaca aagtttaaaa
ggacaagcat tgatagattg atgaatactc tagtactatg gatttttggg tttctgatat
                                                                     180
                                                                   240
gcttgggaat tattcttgca ataggaaatt caatctggga gagtcaaact ggggaccaat
tcagaacttt cctcttttgg aatgaaggag agaagagctc tgtgttctcc ggattcttaa
                                                                     300
cattctggtc atatattatt attctcaata cagttgtacc catttcctta tatgtgagtg
                                                                     360
                                                                     420
tggaagtaat tcgtctagga cacagttatt ttataaactg ggaccggaag atgtattaty
                                                                    468
ctcgaaaagc aatacctgca gtggctgaa cgaccacgct caatgagg
<210> 376
<211> 181
<212> DNA
```

```
<213> Homo sapiens
<220>
<221> misc_feature
<222> (178)..(178)
<223> n equals a,t,g, or c
<400> 376
ggtcagtgtg cagatagcct tggataccag ktactggact ttcattaatc acgtcttcat
ctgggggagc attgccattt atttctccat tttatttaca atgcacagta atggcatctt
                                                                      120
tggcatcttc ccaaaccagt ttccatttgt tggtaatgca cgacattccc tgacccanaa
                                                                      180
                                                                      181
<210> 377
<211> 612
<212> DNA
<213> Homo sapiens
<221> misc feature
<222> (47)..(47)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (534)..(534)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (537)..(537)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (563)..(563)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (565)..(565)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (591)..(591)
<223> n equals a,t,g, or c
<400> 377
cagtctgggc ttaagaaacc accagaagaa cccaaaccag aaatgcncaa gtgtaaatgc
                                                                       60
aaaaattott atagaagaaa tagcataaga atttgcacat toggaaataa gaccacotto
                                                                      120
catgaacaag gagaagcctt tggagatatc taaactgtgc aaatgaatag tcgctggcta
                                                                      180
agactgcttg caatccttcc tggccgctga tgccaacaccaatgtgagca cttttaatca
                                                                     240
                                                                      300
tgctgacatc attggctcca tcwccaatgg ccaaagtaac agcatttctg tacttcttca
ccagctctac cacttgggct ttctggagtg gagtgaccct gcagcaaatt acagtcttac
                                                                      360
acatgcaagc aagttctagg agatcattct tgacatcact ttctagggca tgagccaaac
                                                                      420
tgtggccatt tatgattaag gcataatctc ctgttatggt ttcttctaca atagaatcca
                                                                      480
```

```
actccagctg ctgcttttt tcacaaacta catggccatt ggaaaaattt ctgnttngtc
                                                                      540
caaacaaatt ttgttttgaa atnangagtt cttctctcac ttccacagca nttattccct
                                                                      600
gctataggga gg
                                                                      612
<210> 378
<211> 1024
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (29)..(29)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (986)..(986)
<223> n equals a,t,g, or c
<400> 378
tgctttcctg agttcttctc tcacttccnc agcattattc cctgctatcc caaacmcatc
                                                                        60
attcatgtcg tcagtcagca tgttgcaggc ataaccgatg ttgatgscag tttcttgttt
                                                                      120
gtctcctgtt aggacccaga tcttaatatt ggctagtgat aaacttgtaa ctgtttcaat
                                                                      180
aacaccctcc tgtaacttat cttctacagcagtggcacct agtagcatca aatctctttc
                                                                      240
aatttcttca tatagcccag ctattcgttc atccctctct tctgtggcaa cattcgcatc
                                                                      300
ttcaagcatc ttatgccact ctttaaagta cttgtcatcc aggtctctgt atgcgatggc
                                                                      360
caaggtccga aggccttccc ctgcaaattc actgaggtgg tctgacgtca aagacaaaag
                                                                     420
gacttcattg gaaggatsaa gtttctcaaa cagaatagta tctgctcctt tggaataaag
                                                                      480
ctttatctgt ccttctgggt ttcgarctat gacagacatc ctttttctgg tgttgttgaa
                                                                      540
atccaaaaag gcaagtaatt gataagtaac tagtgttccc aattcttcta ttgttatggt
                                                                      600
ctctggggtc cgggatttaa aratgaccc aaaatttcta gcggcagtca ctagagcccc
                                                                      660
ttcatcaggt gactgaactt ggtaaatcag ctctcctgcg ctattctctt ctgacattac
                                                                      720
agtgtggcag agagcaagta acctaaggaa ttcatgaact ttgggatcac ccattttaat
                                                                      780
ggattccatc agattgtggt caaagaactg aaattctcta tccgcttgag atttgatga
                                                                     840
gaaatccaca ggctcttttt cctgagttat ttctgtcttc tgatccaggt catcatgtac
                                                                      900
ttcaccatag attctcccat taatggaaca tcttttaaag gtcatgatgt tttgagtgag
                                                                      960
ggtacccgtt ttgtcggaga aaatgnactc aatctgcccc agttcttcat tgagcgtggt
                                                                     1020
cgtt
                                                                     1024
<210> 379
<211> 366
<212> DNA
<213> Homo sapiens
<400> 379
gacgcgtggg agctcattat ccatcaaact cactcargtg wcacytgagt gagtttgatg
                                                                       60
gataatgagc taatgtgata tctataggtc acaatttttt aaaaccaaaa ttttcægtc
                                                                     120
tgggataatc tttcctaaat gggatcaaat gaaataatat gtgtaaaaga gtcaaatgca
                                                                      180
gtcctttacc atagtaactg cctatggacg ttgtctttcc cttacatgcc tgcctacact
                                                                      240
taaccagatg ttggttttca agtctaatkt gtcattagtt tcaccacatt kgctcacttt
                                                                      300
tkgtaacatt tttgcaagat ttgaaaactt tcagtaaatg ttttggcact attggtaaaa
                                                                      360
aaaaaa
                                                                      366
<210> 380
<211> 519
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (371)..(371)
<223> n equals a,t,g, orc
<400> 380
                                                                     60
cctggttagg gtcctacagg gaaataaaat tataaccgtg gaggtacatt tctctaccag
aaagcaaaaa taaagcatca tgtcttaatg gttttctaca aatcaacttc taattctaca
                                                                    120
gagtccttaa tctggtccct attaaattct tggtcagaca aagttacatt tcccaagaga
                                                                    180
gtcaggtgac acttgagtga gtttgatgga taatgagcta atgtgatatc tataggtcac
                                                                    240
aattttttaa aaccaaaatt ttcaagtctg ggataatctt tcctaaatgg gatcaaatga
                                                                    300
                                                                    360
aataatatgt gtaaaagagt caaatgcagt cctttaccat agtaactgcc tatggacgtt
                                                                   420
gtctttccct nacatgcctg cctacactta accagatgtt ggttttcat gtctaatttg
                                                                    480
tcattagttt caccacattt gctcactttt tgtaacattt ttgcaagatt tgaaaacttt
                                                                    519
cagtaaatgt tttggcacta ttggtaaaaa aaaaaaaaa
<210> 381
<211> 1867
<212> DNA
<213> Homo sapiens
<400> 381
                                                                     60
cccacgcgtc cgggccacag cagagacagt ggagggcagt ggagaggacc gcgctgtcct
gctgtcacca agagctggag acaccatctc ccaccgagag tcatggcccc attggccctg
                                                                     120
                                                                    180
cacctcctcg tcctcgtccc catcctcctc agcctggtgg cctcccagga ctggaaggct
                                                                    240
qaacqcaqcc aagacccctt cgagaaatgc atgcaggatc ctgactaga gcagctgctc
                                                                     300
aaqqtqqtga cctgggggct caatcggacc ctgaagcccc agagggtgat tgtggttggc
                                                                     360
gctggtgtgg ccgggctggt ggccgccaag gtgctcagcg atgctggaca caaggtcacc
                                                                     420
atcctggagg cagataacag gatcgggggc cgcatcttca cctaccggga ccagaacacg
                                                                    480
ggctggattg gggagctggg agccatgcgc atgcccagct ctcacaggat cctccacaag
ctctgccagg gcctggggct caacctgacc aagttcaccc agtacgacaa gaacacgtgg
                                                                     540
acggaggtgc acgaagtgaa gctgcgcaac tatgtggtgg agaaggtgcc cgagaagctg
                                                                     600
ggctacgcct tgcgtcccca ggaaaagggc cactcgcccg agacatcta ccagatggct
                                                                    660
                                                                     720
ctcaaccagg ccctcaaaga cctcaaggca ctgggctgca gaaaggcgat gaagaagttt
                                                                     780
qaaaqqcaca cgctcttgga atatcttctc ggggagggga acctgagccg gccggccgtg
                                                                     840
cagcttctgg gagacgtgat gtccgaggat ggcttcttct atctcagctt cgccgaggcc
                                                                     900
ctccgggccc acagctgcct cagcgacaga ctccagtaca gccgcatcgt gggtggctgg
gacctgctgc cgcgcgcgct gctgagctcg ctgtccgggc ttgtgctgtt gaacgcgccc
                                                                     960
gtggtggcga tgacccaggg accgcacgat gtgcacgtgc agatcgagac ctctcccccg
                                                                    1020
qcqcqqaatc tgaaggtgct gaaggccgac gtggtmtgc tgacggcgag cggaccggcg
                                                                   1080
                                                                    1140
gtgaagcgca tcaccttctc gccgccgctg ccccgccaca tgcaggaggc gctgcggagg
ctgcactacg tgccggccac caaggtgttc ctaagcttcc gcaggccctt ctggcgcgag
                                                                    1200
gagcacattg aaggcggcca ctcaaacacc gatcgcccgt cgcgcatgat tttctacccg
                                                                    1260
ccgccgcgc agggcgcgct gctgctggcc tcgtacacgt ggtcggacgc ggcggcagcg
                                                                    1320
                                                                    1380
ttcgccggct tgagccggga agaggcgttg cgcttggcgc tcgacgacgt ggcggcattg
                                                                    1440
cacgggcctg tcgtgcgcca gctctgggac ggcaccggcg tcgtcaagcg ttgggcggag
                                                                   1500
gaccagcaca gccagggtgg ctttgtggtacagccgccgg cgctctggca aaccgaaaag
                                                                    1560
gatgactgga cggtccctta tggccgcatc tactttgccg gcgagcacac cgcctacccg
cacggctggg tggagacggc ggtcaagttg ctgcgcgccg ccatcaagat caacagccgg
                                                                    1620
aaggggcctg catcggacac ggccagcccc gaggggcacg catctgacat ggaggggcag
                                                                  1680
                                                                    1740
gggcatgtgc atggggtggc cagcagcccc tcgcatgacc tggcaaagga agaaggcagc
                                                                    1800
caccetecag tecaaggeea gttatetete caaaacaega eecacaegag gaeetegeat
                                                                    1860
1867
aaaaaaa
```

```
<211> 1722
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (401)..(401)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (695)..(695)
<223> n equals a,t,g, or c
<400> 382
gggaccgcgc tgtcctgctg tcaccaagag ctggagacac catctcccac cgagagtcat
                                                                     60
ggccccattg gccctgcacc tcctcgtcct cgtccccatc ctcctcagcc tggtggcctc
                                                                    120
                                                                    180
ccaggactgg aaggctgaac gcagccaaga ccccttcgag aaatgcatgc aggatcctga
ctatgagcag ctgctcaagg tcaccatcct ggaggcagat aacaggatcg ggggccgcat
                                                                   240
                                                                    300
cttcacctac cgggaccaga wyacgggctg gattggggag ctgggagcca tgcgcatgcc
cagctctcac aggatcctcc acaagctctg ccagggcctg gggctcaacc tgaccaagtt
                                                                    360
                                                                   420
cacccagtac gacaagaaca cgtggacgga ggtgcacgaa ntgaagctgcgcaactatgt
ggtggagaag gtgcccgaga agctgggcta cgccttgcgt ccccaggaaa agggccactc
                                                                    480
                                                                    540
gcccgaagac atctaccaga tggctctcaa ccaggccctc aaagacctca aggcactggg
ctgcagaaag gcgatgaaga agtttgaaag gcacacgctc ttggaatatc ttctcgggga
                                                                    600
                                                                    660
ggggaacctg agcggccgg ccgtgcagct tctgggagac gtgatgtccg aggatggctt
                                                                    720
cttctatctc agcttcgccg aggccctccg ggccnacagc tgcctcagcg acagactcca
                                                                    780
gtacageege ategtgggtg getgggaeet getgeegege gegetgetga getegetgte
cgggcttgtg ctgttgaacg cgcccgtggt ggcgatgacc caggaccgc acgatgtgca
                                                                   840
                                                                    900
cgtgcagatc gagacctctc ccccggcgcg gaatctgaag gtgctgaagg ccgacgtggt
                                                                    960
gctgctgacg gcgagcggac cggcggtgaa gcgcatcacc ttctcgccgc gctgccccgc
                                                                   1020
cacatgcagg aggcgctgcg gaggctgcac tacgtgccgg ccaccaaggt gttcctaagc
ttccgcaggc ccttctggcg cgaggagcac attgaaggcg gccactcaaa caccgatcgc
                                                                   1080
ccgtcgcgca tgattttcta cccgccgccg cgcgagggcg cgctgctgct ggcctcgtac
                                                                   1140
acgtggtcgg acgcggcgc agcgttcgcc ggcttgagcc gggaagaggc gttgcgcttg
                                                                   1200
                                                                  1260
gcgctcgacg acgtggcggc attgcacggg cctgtcgtg gccagctctg ggacggcacc
                                                                   1320
ggcgtcgtca agcgttgggc ggaggaccag cacagccagg gtggctttgt ggtacagmcg
                                                                   1380
ccggcgctct ggcaaaccga aaaggatgac tggacggtcc cttatggccg catctacttt
gccggcgagc acaccgccta cccgcacggc tgggtggaga cggcggtcaa gtcggcgctg
                                                                   1440
cgcgccgcca tcaagatcaa cagccggaag gggcctgcat cggacacggc cagccccgag
                                                                   1500
gggcacgcat ctgacatgga ggggcagggg catgtgcatg gggtggccag cagccctcg
                                                                   1560
catgacctgg caaaggaaga aggcagccac cctccagtcc aaggccagtt atctctccaa
                                                                   1620
                                                                  1680
1722
aaaaaaaaa aaaaaaaaaa aaaaagggcgg cc
<210> 383
<211> 2042
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2001)..(2001)
<223> n equals a,t,g, or c
<400> 383
ggtcagcttt catctcgtcc tatctttgtt caggcaaact tctctagttc tgttttaata
                                                                     60
```

```
ggcatatttg ttaggtctgt tttttgaaat cctctttttt acattgttta aagataatgc
                                                                      120
                                                                      180
cttggctaaa aagcctgctt cacttttccc tgtttttagt tgttttctcc acattggcag
taaagagcct tggcgtccca gtagcag@ag gttctccttt ttgtattgtg gatgttttgc
                                                                     240
atttcatact gttgtgaaga gtggctttga tcatacatgt tgttggtata tttgccyttt
                                                                      300
                                                                      360
tgctgggggt gtgagaagaa ccagagatga gcagaggtac acccagtaga cttcccagcc
                                                                     420
tgcagagcct cccgggaaga gcttccgtgt tcaggtgctt ggggccccwc cctaggagc
                                                                      480
tgwctcwcag tcagagcwgg gtcccggctt gygttcagga ttttgaaaca tttgtawggt
gattttgttg tttctacacc tttctcctca tcttttttt tttgtagtta atcgttacta
                                                                      540
ataacagaaa agacattttt ggcatggtaa ttggcacaaa gtgaataatt gttgaataga
                                                                      600
tgacttttga ggctttcaaa attcgagtgt ccataaaatc catccagagc cacctggttc
                                                                      660
                                                                      720
ctttttttga accacttaac gtaattctgg aaaaccttga ctgtgggtct taagtttggt
                                                                      780
qqattqctqc ttctcactgg ctgacctttg gaggtcgcat atttcaggat gtgattccac
ttaggctcca tttcacctga cactgcaatt ctgtgccttc agagggattt gt#ttgcga
                                                                     840
atgatgtgga caacaagege tgetacetge tegtecatea agecaagagg etgageagee
                                                                      900
                                                                      960
cctgcatcat ggtggtcaac catgatgcct ccagcatacc caggctccag atagatgtgg
                                                                     1020
acggcaggaa agagatcctc ttctatgatc gaattttatg tgatgtccct tgcagtggag
acggcactat gagaaaæac attgatgttt ggaaaaagtg gaccacctta aatagcttgc
                                                                     1080
agctacatgg cttacagctg cggattgcaa cacgcggggc tgaacagctg gctgaaggtg
                                                                     1140
                                                                     1200
gaaggatggt gtattccacg tgttcactaa accctattga ggatgaagca gtcatagcat
ctttactgga aaaaagtgaa ggtgctttgg agcttgctga tgtgtctat gaactgccag
                                                                    1260
ggctgaagtg gatgcctgga atcacacagt ggaaggtaat gacgaaagat gggcagtggt
                                                                     1320
ttacagactg ggacgctgtt cctcacagca gacacaccca gatccgacct accatgttcc
                                                                     1380
                                                                     1440
ctccgaagga cccagaaaag ctgcaggcca tgcacctgga gcgatgcctt aggatattac
cccatcatca gaatactgga gggttttttg tggcagtatt ggtgaaaaaa tcttcaatgc
                                                                     1500
cgtggaataa acgtcagcca aagcttcagg gtaaatctgc agagaccaga gaaagcacac
                                                                     1560
agctgagccc tgcagatctc acagaaggga aacccacaga tccctctaag ctggaaagtc
                                                                     1620
                                                                    1680
cgtcattcac aggaactggt gacacagaaa tagctcatgc aatgaggat ttagagaata
                                                                     1740
atggcagtaa gaaagatggc gtgtgtggtc ctcctccatc aaagaaaatg aagttatttg
                                                                     1800
gatttaaaga agatccattt gtatttattc ctgaagatga cccattattt ccacctattg
                                                                     1860
agtaaggatt cagccttttt aattattcat ttaaagaaat ttactataga gtatcaaatg
                                                                     1920
tacaactgat cacatgtaac cattgttttg tatgtagttc tgtctagctt ttttttttt
                                                                     1980
ttaacctttt taactgcata ttagagcagg atgaaacttt agaggttact caatctttta
atttaaggag aaagtaaaca nttactttgt gaacatgata gataaaaaaa aactggaccg
                                                                     2040
gg
                                                                    2042
<210> 384
<211> 308
<212> DNA
<213> Homo sapiens
<400> 384
ggaggcagga ccttgtccta ttcattaatc ttgcccctca acagttattt tcagaggggc
                                                                       60
aagaagtgtt tcagggttct tggcccttgt ttgaccagtc gtcctaaccc tcrtgtcttg
                                                                      120
ggtcattgtt gttrtaatct ggggttacct tttggaaggt catggggtac ccttttgcaa
                                                                      180
                                                                      240
aagttatggg ccctmtcctt ggaaactgca cacacacat gcagcttaca attcagggag
ttcacaggtc tacagaatcc tgggaaactc tccatgtccg gttctaatcc attgtagctt
                                                                      300
                                                                     308
cagtggga
<210> 385
<211> 1568
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1550)..(1550)
<223> n equals a,t,g, or c
```

```
<220>
<221> misc feature
<222> (1564)..(1564)
<223> n equals a,t,g, or c
<400> 385
ctcatcagcc ctatgaggta gggaggtagg tattattatc accettgtta gtttttttgt
                                                                       60
tttgttttgt tttccagatg agagaatcat tgctcacaga agtgaagtaa cttttccaag
                                                                      120
gtcatacaat cagtaagtgg caggcaagga ctgaaatcca agttgttacc ctccaaagtc
                                                                      180
cctgctctga gaactggagg aattcttat caaatctaaa atcctcttt agscctgtct
                                                                      240
gctttaatat tccggtcttt attgatcctt ctcttctcta aamcttcagc tgtcagtata
                                                                      300
aaaatcaagg aatttagcmc ttgttattgt gtgamcagct tcttgtctct cctgtactgt
                                                                      360
aagtgggtct agggattttt attctttaaa tatcccctg tactcagtag atctttggga
                                                                     420
gamcaagete ataggettet aataattett tetttgaetg ceagetgaat tagacagaag
                                                                      480
gtaagtcctg ctgccgtgtc gtgcctaacc ccatctttat ttcctgtgct gttagagaac
                                                                      540
agtottttot tggctggaac aaatactaca gcctgctcaa ctagctaata tgtattgagt
                                                                      600
tcttartatg ttccaaggac tgctctaagt attttatata tattaactca ctgaatctta
                                                                      660
aataccctat gagctaagtc ctattttat ccccatttta caaaagagga aactgaatgt
                                                                      720
accagtgcat cagtatttga ctgagtaaat gaatgactgc tttgctgatg gatagtatta
                                                                      780
ttagcaacaa ccctacaaat atgatgttat gtttgcatca tgcagtacag cttatgtac
                                                                     840
cttatgtcat tgtcactcat gattagcaaa taggcacgaa catccctatt ttatagaaga
                                                                      900
ggaamccatg gctctaagag ggtgagtgat tctcaacagt cacatgccat ctgtatcctt
                                                                      960
cagtaaacaa ggtatttggt ccattccagg atcgggggca agagagatgg gaqqqcctcq
                                                                     1020
gtgagaaaca ctcatattca caaaaggtac tagatagata gacagataaa taaataaata
                                                                     1080
gagataaaag ctagtaatag cagagatttg atgggaattc agatctttga ttcctagtcc
                                                                     1140
agtgctcttt cttttatgta aggtgatggg aagcaagtct taggtccaga tctggcagct
                                                                     1200
gctttgattt aggatcttaa gccagaagca gcagcgccct aaacaaaag catcatttta
                                                                    1260
acttctctgc atttctcaca ttctcaacaa tgaccatgcc ctactttcat aattaaaaac
                                                                     1320
aaacaaataa acagaggggg caaaatgcat ccttctgagt gggctggggc ttgtagaggg
                                                                     1380
attcttgggt ttgctctggg atgtctttgg gcccctgcac ttgtgggcac tctgatttat
                                                                     1440
ccccacaggc cacctggccc accttatggg ctgaggaggg cttgatgggc ggaggsaagc
                                                                     1500
agagctgagg agctgggag gagctggaaa ggactgctag aaggttccan tgaagctaca
                                                                     1560
atgngtag
                                                                     1568
<210> 386
<211> 865
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (13)..(13)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (20)..(20)
<223> n equals a,t,g, or c
<400> 386
accgcagcct gcngggctcn agcattccty tsgcytcagc ctcctgakta gctgggaccm
                                                                       60
cagytccact aattttgaag ttttttkggt agacatgaag tctccctgtg ttgcccgggc
                                                                      120
tggtctcaaa ctcctgacct caagcagtcc tcctgtcttg gcctctggaa atgctgggat
                                                                      180
tacaggcgtg agccactgtg ctggcctctt ttttcttttt cttttttt aaggttttta
                                                                      240
tttgttaaat gggaagtctg tgccatcaac tgagcattgtattttctcct tagtaagagc
                                                                     300
ctgggtgggc cactgggaga gaactataca ttaaatgtaa gtagcctctg ggtagagagc
                                                                      360
```

```
ccctggctgg tttcctttcc tttctctcct tttctctact ttggtgtctg gaggcatttc
                                                                       420
                                                                       480
ccagactcca gtttcttacc accctcacgg attttgctat tgtattatca cctcctttat
                                                                       540
cattcccaaa attgacttta tggagactca ttaaaagaaa gaatcatcgg ccgggagcgt
kgctcacgcc acgaaggcgg gcgaatcacc tgaggtgcgg agttcgtgac cagcctgacc
                                                                       600
                                                                       660
aaaacagaga aaccccatct ctactaaaca atacaaaatt agctgggcgt ggtggtgcac
                                                                      720
gcctgtaatc ccagctactg gggaggctgg gacggagaa tcacttgaac ccgggaggca
gaggttgcag tgaccaaaga tcgcactatt gcactccagc ctgggcaaca agagcaaaac
                                                                       780
tctatctcaa aaaaaaaaa aaaaaaaaa aaaagggcgg ccgctctaga ggatccctcg
                                                                       840
aggggcccaa gcttaggcgt gcatg
                                                                       856
<210> 387
<211> 1687
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1568)..(1568)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1652)..(1652)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1654)..(1654)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
\langle 222 \rangle (166\overline{0})...(1661)
<223> n equals a,t,g, or c
<400> 387
ccacgcgtcc gggcagtggg gtgagggcac acaagcagtt cagggtccca gcaggaagtg
                                                                        60
gggctgcagg gccggggtgg gtcctgggcc tggccatcag gcagctagc aggttgttct
                                                                      120
gggcatggag ggggcctggt gtggctgagg gcatgcccag ggctccctgg aggatcccgc
                                                                       180
tetgtgeect geceaecetg tgeetgggga gecetetgee etcacagece acceaececa
                                                                       240
ttttctatga ccacagagct ccgacctgga agatggctca cccaggaggt cccaggagct
                                                                       300
ctcactcccc caggggacct ggaggacacc cagctctcag acaaaggctg ccttgccggc
                                                                       360
ggggggagcc cgaaacagcc ctttgcagct ctgcaccagg agcaggtttt gcggaacccc
                                                                       420
catgtaaggc ttccccgggg tggggtcctc ccagccgtgg gcctcagggt gaccgatcac
                                                                       480
agggagagtg gctccctgcc ctgggcaccc cctgcggtggccccgacgac agctgaggag
                                                                      540
tgaccacaag gtctctgccc acagtgctcg gggtgcggtg tctgggctgc gaagtggatc
                                                                       600
cccctccttt cttgggcact gcagcagctt ggggggcttt ttggacgtgg atgtgcctgg
                                                                       660
tcctggtttc ccgagggcct ttacagtgga tgaggaggtg aacacaggga gtcctgagag
                                                                       720
caagcaccac ctcgggcttt ggtgtagaaa caatggcccg gaccccaggc cggagccgtg
                                                                       780
gcttggcctc ctgggtgtgt cttggcatct gaaatgcagg ctacccacac cggctcacct
                                                                       840
ccaggggtac aggcaggtcc cacagggaga gcttggcgct gagctgaggc tgtctgggct
                                                                       900
cctcgcctcc caaccagtct gcagttacag gggcagtgg atgggcgggt gagaaggacg
                                                                      960
ggttccctca ggggagccgg ccggagcccg agccttcccc cttctccagg acgcaggcct
                                                                      1020
                                                                      1080
gagcagcggg gagccgcccg agaaggagcg gcggcgcctc aaagagagtt ttgagaacta
ccgcaggaag cgcgccctca ggaagatgca gaaaggatgg cggcagggtg gaggaggacc
                                                                      1140
                                                                      1200
gggagaacac cacgggcagc gacaacaccg acactgaggg ctcctagccg cagcagccgc
aggccccgac cagggcacac ccaccggccc ggcctcctgc cacccggggg tgccgacgcc
                                                                      1260
```

```
ctggggcgca gacttccccg agccgtcgct gacttggcct ggaacgagga atctggtgcc
                                                             1320
ctgaaaggcc cagccggact gccgggcatt ggggccgttt gttaagcggc actcattttg
                                                            1380
cggaggccat gcgggtgctc accaccccca tgcacacgcc atctgtgtaa cttcaggatc
                                                             1440
tgttctgttt caccatgtaa cacacaatac atgcatgcat tgtattagtg ttagaaaaca
                                                             1500
                                                            1560
1620
1680
                                                             1687
aaaaaaa
<210> 388
<211> 570
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)..(5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (16)..(16)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (496)..(496)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (523)..(523)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (531)..(531)
<223> n equals a,t,g, or c
<400> 388
ttccngtgcc actatngaat gtacgcctgc aggtaccggt ccggaattcc cgggtcgacc
                                                               60
cacgcgtccg ggcagtgggg tgagggcaca caagcagttc agggtcccag caggaagtgg
                                                              120
ggctgcaggg ccggggtggg tcctgggcct ggccatcagg cagcctagca ggttgttctg
                                                              180
                                                              240
ggcatggagg gggcctggtg tggctgaggg catgcccagg gctccctgga ggatcccgct
                                                              300
ctgtgccctg cccaccctgt gcctggggag ccctctgccc tcacagcca cccaccccat
ttwctatgac cacagagctc cgacctggaa gatggctcac ccaggaggtc ccaggagctc
                                                              360
tcactccccc aggacctgga rgacacccag ctctcagaca aargctgcct tgccggcggg
                                                              420
gggagcccga aacagccctt tgcagctctg caccaggagc aggttttgcg gaacccccat
                                                              480
                                                              540
gtaaggette eeeggngtgg ggteeteeag eegtgggeet eanggtgaee nateaeaggg
                                                              570
agagtggctc cctgtcctgg gcaccccctg
<210> 389
<211> 1752
<212> DNA
 <213> Homo sapiens
<220>
```

```
<221> misc feature
<222> (1099)..(1099)
<223> n equals a,t,g, or c
<400> 389
                                                                       60
aaggtacgcc tgcaggtacc ggtccggaat tcccgggtcg acccacgcgt ccgtccagga
                                                                      120
cagagagtgc acaaactacc cagcacagcc ccctccgccc cctctggagg ctgaagaggg
                                                                      180
attocagece etgecaceca cagacaeggg etgactgggg tgtetgeece eettgggggg
gggcagcaca gggcctcagg cctgggtgcc acctggcacc tagaagatgc ctgtgccctg
                                                                      240
                                                                      300
gttcttgctg tccttggcac tgggccgaag cccagtggtc ctttctctgg agaggcttgt
                                                                      360
ggggcctcag gacgctaccc actgctctcc gggcctctcc tgccgcctct gggacagtga
                                                                     420
catactctgc ctgcctgggg acatcgtgcc tgctcgggc cccgtgctgg cgcctacgca
                                                                      480
cctgcagaca gagctggtgc tgaggtgcca gaaggagacc gactgtgacc tctgtctgcg
tgtggmtgtc cacttggccg tgcatgggca ctgggaagag cctgaagatg aggaaaagtt
                                                                      540
tggaggagca gctgacttag gggtggagga gcctaggaat gcctctctcc aggcccaagt
                                                                      600
                                                                      660
cgtgctctcc ttccaggcct accetactgc ccgctgcgtc ctgctggagg tgcaagtgcc
                                                                      720
tgctgccctt gtgcagtttg gtcagtctgt gggctctgtg gtatatgact gcttcgaggc
tgccctaggg agtgaggtac gaatctggtc ctatactcag cccaggtacg agaaggaayt
                                                                      780
                                                                     840
caaccacaca cagcagctgc ctgactgcag ggggctcgaa gtctggaaca gcatcccgag
                                                                      900
ctgctgggcc ctgccctggc tcaacgtgtc agcagatggt gacaacgtgc atctggttct
gaatgtetet gaggageage actteggeet etecetgtae tggaateagg teeagggeee
                                                                      960
cccaaaaccc cggtggcaca aaaacctgac tggaccgcag atcattacct tgaaccacac
                                                                   1020
                                                                     1080
agacctggtt ccctgcctct gtattcaggt gtggcctctg gaacctgact ccgttagacg
                                                                     1140
aacatctgcc ccttcaggna ggacccccgc gcacaccaga acctctggca agccgcccga
                                                                     1200
ctgcgactgc tgaccctgca gagctggctg ctggacgcac cgtgctcgct gcccgcagaa
geggeactgt getggegge teegggtggg gacecetgee ageeactggt eccaeegett
                                                                    1260
tcctgggaga aygtcactgt ggacaaggtt ctcgagttcc cattgctgaa aggccaccct
                                                                     1320
                                                                     1380
aacctctgtg ttcaggtgaa cagctcggag aagctgcagc tgcaggagtg cttgtgggct
                                                                    1440
gactccctgg ggcctctcaa agacgatgtg ctactgttgg agacacgagg ccccoagac
                                                                     1500
aacagatccc tctgtgcctt ggaacccagt ggctgtactt cactacccag caaagcctcc
acgagggcag ctcgccttgg agagtactta ctacaagacc tgcagtcagg ccagtgtctg
                                                                     1560
                                                                     1620
cagctatggg acgatgactt gggagcgcta tgggcctgcc ccatggacaa atacatccac
                                                                     1680
aagcgctggg ccctcgtgtg gctggcctgc ctactctttg cctgcgcttt ccctcatcct
ccttctcaaa aaggatcacg cgaaagggtg gctgaggctc ttgaaacagg acgtccgctc
                                                                     1740
                                                                     1752
gggggcggcc gc
<210> 390
<211> 536
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (508)..(508)
<223> n equals a,t,g, or c
<400> 390
ggtcgaccca cgcgtccgcc cacgcgtccg gcttccttaa tgtaatttaa accctggcaa
                                                                       60
acattettta gaaaccaaga ggaaagaaag aacaaatate aaaaaagaca tagaatttaa
                                                                      120
tattgataca atttcacctc taaaatggat ttgaagaaat gcaactttat atcaaaaaat
                                                                      180
                                                                      240
gtcatctgat ttcctttgtt tcttttttaa attatgtaat cagatgattt tatgttttt
tttcagggga gcggaatatt ggtttctttt acttgttgtt ttcagttttc tctgccattc
                                                                      300
                                                                     360
atgtttcttt tttgtgttca gtgtttcaaa tacaatttgt atttaaggt tttaaaatac
caaactgtaa ctgagtacag tggatcgttt tctgttagga tgttaatatt atacaatgaa
                                                                      420
                                                                      480
atctataaag tgttgtcaat ttgattattg acacatataa catgtttaca aataaactgt
ggtattgatc aaaaaaaaa aaaaaaancc cggggggggc cccggaaccc aatccc
                                                                      536
```

```
<210> 391
<211> 716
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (630)..(630)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (710)..(710)
<223> n equals a,t,g, or c
<400> 391
gcctcagcgg ccgggcccac ggccccgagc agccatgctg gggcgcggg cctggttggg
                                                                      60
ccgcgtcctt ctgctgcccc gcgccggtgc aggcctcgcc gcragccgca ggtgtcctgg
                                                                      120
agtetggece aggacetgge eccaeaggag teccageagg ggtageteet ecegggaeaa
                                                                      180
ggaccgaagt gcgacggtca gtagttcagt gcccatgcct gctggaggga aaggaagcca
                                                                      240
tectteatet acaceccaga gggteeccaa eegeetgate eacgagaagt eaccatacet
                                                                      300
cctacaacat gcctacaatc ctgtggactg gtacccctgg ggacaggaag ccttcgacaa
                                                                      360
ggccaggaag gaaaacaagc cgattttcct ctcagtcggg tactccacct gccactggtg
                                                                      420
ccacatgatg gaagaggagt ccttccagaa tgaggagtt ggccgcctgc tcagtgagga
                                                                     480
ctttgtgagt gtgaaggtag accgtgagga gcggcctgac gtggacaagg tgtacatgac
                                                                      540
gttcgtgcag gccaccagca gcggcggggg ctggcccatg aatgtgtggc tgactcccaa
                                                                      600
cctccagccc tttgtcgggg gcactatttn cctcctgaag gatggcttga mccgagtsgg
                                                                      660
                                                                      716
ttccgcacag tgttkctgag aatacgagaa cartggaaac agaacaagan caccct
<210> 392
<211> 2716
<212> DNA
<213> Homo sapiens
<400> 392
ggccgggccc acggcmccga gcagccatgc tgggcgcgcg ggcctggttg ggccqcqtcc
                                                                       60
ttctgctgcc ccgcgccggt gcaggcctcg ccgcgagccg caggtctgcc tgcagtccca
                                                                     120
cttccaggct gaactccctg aggtctctga ttccctaggt gtcctggagt ctggcccagg
                                                                      180
acctggcccc acaggagtcc cagcaggggt agctcctccc gggacaagga ccgaagtgcg
                                                                      240
acggtcagta gttcagtgcc catgcctgct ggagggaaag gaagccatcc ttcatctaca
                                                                      300
ccccagaggk tccccaaccg cctgatccac gagaagtcac catacctcct acaacatgcc
                                                                      360
tacaatcctg tggactggta cccctgggga saggaagcct tygacaaggc caggaaggaa
                                                                      420
aacaagccga ttttcctctc agtcgggtac tccacctgcc actggtgcca catgatggaa
                                                                      480
gaggagtcct tccagaatga ggagattggccgcctgctca gtgaggactt tgtgagtgtg
                                                                     540
aaggtagacc gtgaggagcg gcctgacgtg gacaaggtgt acatgacgtt cgtgcaggcc
                                                                      600
accagcagcg gcgggggctg gcccatgaat gtgtggctga ctcccaacct ccagcccttt
                                                                      660
gtcgggggca cctatttccc tcctgaggat ggcttgaccc gagtcggctt ccgcacagtg
                                                                     720
ttgctgagaa tacgagaaca gtggaaacag aacaagaaca ccctgctaga aaatagccag
                                                                      780
cgtgtcacca ctgccctgct ggcccgatca gagatcagcg tgggtgaccg ccagctgccg
                                                                      840
ccctctgccg ccaccgtgaa caatcgctgc ttccagcagc tggatgaggg ctatgatgag
                                                                      900
                                                                     960
gaatacggtg gcttcgctga ggccccaag tttcccacgc cggtgatcct gagcttcctg
                                                                     1020
ttctcctact ggctcagcca tcgactgact caggatggct ctcgggccca gcagatggcc
                                                                     1080
ttgcataccc tgaaaatgat ggctaacggg ggcatccggg accatgtggg gcagggcttt
caccgctact ccacagaccg ccagtggcac gtccctcact ttgagaagat gctctagac
                                                                    1140
caggcacage tegetgtgge ctattegeag geetteeage tetetggtga tgaattetae
                                                                     1200
tctgacgtgg ccaaaggcat cctgcagtac gtggctcgga gcctgagcca ccggtccgga
                                                                     1260
ggcttctata gcgcagarga tgcagactcg ccccagagc ggggccagcg gcccaaagag
                                                                     1320
```

```
ggcgcctact atgtgtggac ggtcaaagag gttcagcagc tcctcccgga gcctgtgttg
                                                                  1380
                                                                   1440
ggtgccaccg agccgctgac ctcaggccag ctcctcatga agcactacgg cctcacagag
                                                                   1500
gctggtaaca tcagccccag tcaggacccc aagggggagc tgcagggcca gaatgtgctg
                                                                  1560
accgtccggt actcgctgga gctgactgct gcccgctttg gcttggatgtggaggccgtg
                                                                   1620
cggaccttgc tcaattcagg gctggagaag ctcttccagg cccggaagca tcggcccaag
                                                                   1680
ccgcacctgg acagcaagat gctggctgcc tggaatggct tgatggtgtc aggctatgct
gtgactgggg ctgtcctggg ccaagacagg ctgatcaact atgccaccaa tggtgccaag
                                                                   1740
ttcctgaagc ggcacatgtt tgatgtggcc agtggccgcc tgatgcggac ctgctacacc
                                                                  1800
ggccctgggg ggactgtgga gcacagcaac ccaccctgct ggggcttcct ggaggactac
                                                                   1860
                                                                   1920
gccttcgtgg tgcggggcct gctggacctg tatgaggcct cacaggagag tgcgtggctc
                                                                  1980
gagtgggctc tgcggctgca ggacacacag gacaggctct tttggactc ccagggtggc
                                                                   2040
ggctacttct gcagtgaggc tgagctgggg gctggcctgc ccctgcgtct gaaggacgac
caggatggag cagagcccag cgccaattcc gtgtcagccc acaacctgct ccggctgcat
                                                                   2100
                                                                   2160
ggcttcacgg gccacaagga ctggatggac aagtgtgtgt gcctattgac cgccttttcc
                                                                   2220
gagcgcatgc gtcgtgtccc ggtggcgttg cccgagatgg tccgcgccct ctcagcccag
                                                                   2280
cagcagaccc tcaagcagat cgtgatctgt ggagaccgtc aggccaagga caccaaggcc
ctggtgcagt gcgtccactc tgtctacatt cctaacaagg tgctgattct ggctgatggg
                                                                   2340
gacccctcga gcttcctgtc ccgccagctg cctttcctgagtaccctccg acggttggaa
                                                                  2400
                                                                   2460
gaccaggcca ctgcatatgt gtgtgagaat caagcctgct cagtgcccat cactgatccc
tgcgaattac gaaaactact acatccatga ctgccccaac ccccttgggg tggggcagaa
                                                                   2520
ggtgaagcat cccaactgac tagagactca ggccctgcag ggccctatag aacctgtggc
                                                                   2580
                                                                   2640
catecetgag caecetgeca ecaggtgace teggecatae teactgeece cettgggeae
                                                                   2700
2716
aaaaaagggc ggccgc
<210> 393
<211> 2409
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (694)..(694)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (716)..(716)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (755)..(755)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (761)..(761)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (791)..(791)
<223> n equals a,t,g, or c
<220>
<221> misc feature
```

```
<222> (808)..(808)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (880)..(880)
<223> n equals a,t,g, or c
<400> 393
                                                                      60
ccacgcgtcc ggcgagacgc gttcaccacc atatgcactg ttgtcaactc ccctggagat
qcqcccaaqc cccacaggaa gccttcctcc tctgcctcct cttcctcatc ctcgtcctcg
                                                                     120
ttctccttgq atgcagccgg ggcctccctg gccacactcc ctggggctc catcctgcag
                                                                    180
                                                                    240
ecgeggeest cettgeeset etectecacg atgeacttgg ggeetgtggt ttecaaggee
                                                                     300
ctgagtacct cttgccttgt ttgctgcctc tgccaaaacc cggccaactt caaggacctt
                                                                     360
ggggacctct gtgggcccta ctaccctgaa cactgcctcc ccaaaaagaa gccaaaactc
                                                                    420
aaggagaagg tgcggccaga aggcacctgt gaggaggcct cgctgccgct tgagagaaca
ctcaaaggtc ccgagtgtgc agctgccgcc actgccggga agccccccag gcctgacggc
                                                                     480
                                                                     540
ccagctgacc cggccaagca gggcccactg cgcaccagtg cccggggcct gtcccggagg
600
gacaagggtc gcaaacatga gtgcagcaag gaggctccgg cagagcccgg cggggaggcc
                                                                     660
                                                                    720
caggagcact gggtgcatga ggcctgtgcc gtgnggaccg gcggcgtcta cctggnggcc
                                                                    780
gggaagctct ttgggctgca ggaggccatg aaggnggccg nggacatgat gtgttccagc
                                                                    840
tgccaagaag ncggggccac catcgggngc tgccacaaag gatgcctcca cacctaccac
                                                                     900
tacccgtgtg ccagcgatgc aggttgcata ttcatcgaan agaacttttc tttgaaatgt
                                                                     960
cccaaacata agaggctgcc gtagtaatcc accccaacgg ccggaggagc cgccggagcc
cgcctgcccg cccgccgccg aaggagagga gccgctgcg cagcccccgg gcctttgagc
                                                                   1020
tgctcccagc gctggtccag agccgatcct tgatccgggt cccggatcgt ggatccggcc
                                                                   1080
                                                                   1140
gcctagggct cagacttgcg gccccgggtt gggaggaaaa cccgttccgg agccgcctgc
                                                                   1200
teceqgaace ggaeggeaca gggegttett geecaceeca ggggeeagge ttgeggaggg
                                                                   1260
ggagcccgcg gagcggccag actccccggg gcgctcagcc tccggcgagg gtgggagacg
                                                                    1320
gctttgtcct ggggacactt tccctctgga atctcaagac gacgtggcac acattccacg
                                                                    1380
tgggtgctgc cgccacccca gtcggtcgtg gcgtgcagct gggagccctg ggcttggggg
tgggggtcga aacagtactg gaagaggcg agggcggctc ctagctccgt ggactaggcg
                                                                   1440
ggggaqaaag gaagcctttc tgagagcggg ctaggccggc actggagagg ccggagcctt
                                                                   1500
                                                                    1560
tggaacaaac cgtgcggaac gcgtccaggg gccttcccgc ccagcctttg ccagatctct
                                                                  1620
cgtgcggttc gggcaaagcc ggggtagacc tgggctatgc tcagttaggg gttgcgggat
ccccgagtgt gggcgggact gggacaccct ttggcctctg tttgtcccct ttccagtcct
                                                                    1680
ccaccccacc cctggagccc agcctgggag cgcaaaaccc aagaagcggc cagaacgcac
                                                                    1740
ctccggctcc ggcggacgcg cgaccgttgt gcaccaccag ggaccgccgc gcctactctg
                                                                   1800
cacqqqaqca qqqacaqcqc taqatttcqt qtacaaaacc tqtqtacccc tctatatata
                                                                   1860
tgttacatag aatgtatata tgttgggaac atgctcgctt ctcccgtgtg tcgccgccgt
                                                                   1920
                                                                    1980
gcgtcgtgcg cccgcaacag agccccaacc gggcctttgc cgggtaaggg gctaccgcga
                                                                  2040
egecaettgt ecaegeagee aceaeeggee egggeeagte eetgeeagte egtegeetg
                                                                    2100
tecgteegtg tecteagete tgtecaeget tegataggee tgaegeagee eecageecag
                                                                    2160
ggccgcccta gcaacttcct gtacatatga ctgtaaaatg gtaaacgtgt gtattatatc
tggcctcgtt atatagtgta tatatatgta tacatataca tatatataat atatatgaag
                                                                    2220
                                                                   2280
actgtaaatg ttaagacgac tagtgttctt attagtatat tgcttcacac tgaagattgt
gtgtatcgag ctgtttctaa aagatgttta ttttccttaa gagtaaaaaa cagtcattgc
                                                                    2340
                                                                   2400
attcagaaaa aaaaaaaaa aaaaagtcaa taaagataca acgattgttt tggaaaaaaa
                                                                   2409
aaaaaaaa
<210> 394
<211> 737
<212> DNA
<213> Homo sapiens
<220>
```

```
<221> misc feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (21)..(21)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (369)..(369)
<223> n equals a,t,g, or c
<400> 394
nagagggaag agagaaaaag ntacaatgct tcgccgtycg sctktmcgkc csygtcctca
                                                                       60
                                                                      120
gctctgtcca cgcttcgata ggcctgacgc agcccccagc ccagggccgc cctagcaact
teetgtaeat atgaetgtaa aatggtaaae gtgtgtatta tatetgeet egttatatag
                                                                     180
tgtatatata tgtatacata tacatatata taatatata gaagactgta aatgttaaga
                                                                      240
cgactagtgt tcttattagt atattgcttc acactgaaga ttgtgtgtat cgagctgttt
                                                                      300
ctaaaagatg tttattttcc ttaagagtaa aaaacagtca ttgcattcag aaaaaaaaa
                                                                      360
aaaaaaaang tcaataaaga tacaacgatt gttttggaaa atctgcagcc cgtggattcc
                                                                      420
                                                                      480
gaccagattc agctgggagc cgggccaggc tttaggttgg ggaatgggaa tgaagggagg
ggctgggggg gggggcatga atggagtcag ggagtcggcc tttcacagaa caggaaacct
                                                                      540
cccccgcccc tgtgccccct ctccagtgtg gcggcaggtcgggagggagg aggcttcttt
                                                                     600
gctgtgagat gaccaggggc cgggatgggg gaggtgagac gtgccagact tcttgcaggg
                                                                      660
agacccaage tgtageteet gteecacaae aggteetgga agteagteea teeteeegtg
                                                                      720
                                                                      737
ccacccaggg acctaat
<210> 395
<211> 1471
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (798)..(798)
<223> n equals a,t,g, or c
<400> 395
                                                                       60
tttctgaatg caatgactgt tttttactct taaggaaaat aaacatcttt tagaaacagc
                                                                     120
tcgatacaca caatcttcag tgtgaagcaa tatactata agaacactag tcgtcttaac
                                                                      180
atttacagtc ttcatatata ttatatatat gtatatgtat acatatatat acactatata
acgaggccag atataataca cacgtttacc attttacagt catatgtaca ggaagttgct
                                                                      240
agggcggccc tgggctgggg gctgcgtcag gcctatcgaa gcgtggacag agctgaggac
                                                                      300
acggacggac aggcggacgg actggcaggg actggcccgg gccggtggtg gctgcgtgga
                                                                      360
caagtggcgt cgcggtagcc ccttacccgg caaaggcccg gttggggctc tgttgcgggc
                                                                      420
                                                                      480
gcacgacgca cggcggcgac acacgggaga agcgagcatg ttcccaacat atatacattc
                                                                     540
tatgtaacat atatatagag gggtacacag gttttgtaca cgaaatctag cgctgtccct
gctcccgtgc agagtaggcg cggcggtccc tggtggtgca caacggtcgc gcgtccgccg
                                                                      600
gageeggagg tgegttetgg eegettettg ggttttgege teecaggetg ggeteeaggg
                                                                      660
gtggggtgga ggactggaaa ggggacaaac agaggccaaa gggtgtccca gtcccgccca
                                                                    720
cactegggga tecegeaace cetaactgag catagecear gtetaeceeg getttgeeeg
                                                                      780
aaccgcacga gagatcingc aaargciggg cggraaggcc ccigracgcg ticcgcacgg
                                                                      840
                                                                      900
tttgttccaa aggctccggc ctytccagtg ccggcctagc ccgctctcag aaaggcttcc
                                                                     960
tttctccycc gcctagtcca cggagdagg agccgccctc cgcctcttcc agtactgttt
cgaccccac ccccaagccc agggctccca gctgcacgcc acgaccgact ggggtggcgg
                                                                     1020
```

```
cagcacccac gtggaatgtg tgccacgtcg tcttgagatt ccagagggaa agtgtcccca
                                                                   1080
ggacaaagcc gtctcccacc ctcgccggag gctgagcgcc ccggggagtc tggccgtcc
                                                                  1140
                                                                   1200
gegggetece ceteegeaag cetggeeest ggggtgggea agaacgeest gtgeegteeg
gttccgggag cagkcggctc cggaacgggt tttcctccca acccggggcc gcaagtctga
                                                                   1260
                                                                   1320
gccctaggcg gccggatcca cgatccggga cccggatcaa ggatcggctc tggaccagcg
                                                                   1380
ctgggagcag ctcaaaggcc cgggggctgc gcaggcggct cctctccttc ggcggcgsgc
                                                                   1440
gggcaggcgg gctccggcgg ctcctmcgrc cgttggggtg gattactacg gcagcctctt
                                                                    1471
atgtttggga catttcaaag gggaattctc t
<210> 396
<211> 3302
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (3274)..(3274)
<223> n equals a,t,g, or c
<400> 396
tcgacccacg cgtccgcgac ccacgcgtcc ggggggaggt aactgcagta agtcccgctt
                                                                      60
ggccctggag tccacgcgga ttttcgaagc tggggctggc aagaggccgc tggacaccac
                                                                     120
gctccagtcg tcagccact tcctagctga acagcgcgag gcggcggcag cgagccgggt
                                                                    180
cccaccatgg ccgcgaatta ttccagtacc agtacccgga gagaacatgt caaagttaaa
                                                                     240
accagetece agecaggett cetggaacgg etgagegaga cetegggtgg gatgtttgtg
                                                                     300
                                                                    360
gggctcatgg ccttcctgct ctccttctac ctaattttca ccaatgggg ccgcgcattg
                                                                     420
aaqacqqcaa cctcattggc tgaggggctc tcgcttgtgg tgtctcccga cagcatccac
                                                                     480
agtgtggctc cggagaatga aggaaggctg gtgcacatca ttggcgcctt acggacatcc
                                                                     540
aagettttgt etgateeaaa etatggggte eatetteegg etgtgaaaet geggaggeae
                                                                     600
gtggagatgt accaatgggt agaaactgag gagtccaggg agtacaccga ggatgggcag
                                                                     660
gtgaagaagg agacgaggta ttcctacaac actgaatgga ggtcagaaat catcaacagc
aaaaacttcg accgagagat tggccacaaa aaccccagtg ccatggcagt ggagtcattc
                                                                     720
ayggcaacag ccccctttgt ccaaattggc aggtttttcctctcgtcagg cctcatcgac
                                                                    780
aaagtcgaca acttcaagtc cctgagccta tccaagctgg aggaccctca tgtggacatc
                                                                     840
attcgccgtg gagacttttt ctaccacagc gaaaatccca agtatccaga gktgggagac
                                                                     900
                                                                     960
ttgcgtgtct ccttttccta tgctggactg agcggcgatg accctgacct gggcccagct
cacgtggtca ctgtgattgc ccggcagcgg ggtgaccagc tagtcccatt ctccaccaag
                                                                    1020
                                                                    1080
tctggggata ccttactgct cctgcaccac ggggacttct cagcagagga ggtgtttcat
                                                                    1140
agagaactaa ggagcaactc catgaagacc tggggcctgc gggcagctgg ctggatggcc
atgttcatgg gcctcaacct tatgacacgg atccttaca ccttggtgga ctggtttcct
                                                                   1200
gttttccgag acctggtcaa cattggcctg aaagcctttg ccttctgtgt ggccacctcg
                                                                    1260
ctgaccctgc tgaccgtggc ggctggctgg ctcttctacc gacccctgtg ggccctcctc
                                                                    1320
attgccggcc tggcccttgt gcccatcctt gttgctcgga cacgggtgcc agccaaaaag
                                                                    1380
ttggagtgaa aagaccctgg cacccgcccg acacctgcgt gagccctagg atccaggtcc
                                                                    1440
                                                                    1500
tctctcacct ctgacccagc tccatgccag agcaggagcc ccggtcaatt ttggactctg
                                                                    1560
cacyccctct cctcttcagg ggccagactt ggcagcatgt gcaccaggtt ggtgttcacc
                                                                   1620
agctcatgtc ttccccacat ctcttcttgccagtaagcag ctttggtggg cagcagcagc
tcatgaatgg caagctgaca gcttctcctg ctgtttcctt cctctcttgg actgagtggg
                                                                    1680
                                                                    1740
tacggccagc cactcagccc attggcagct gacaacgcag acacgctcta cggaggcctg
ctgataaagg gctcagcctt gccgtgtgct gcttctcatc actgcacaca agtgccatgc
                                                                   1800
tttgccacca ccaccaagca catctgtgat cctgaagggc ggccgttagt cattactgct
                                                                    1860
                                                                    1920
gagtcctggg tcaccagcag acacactggg catggacccc tcaaagcagg cacacccaaa
                                                                    1980
acacaagtct gtggctagaa cctgatgtgg tgtttaaaag agaagaaaca ctgaagatgt
                                                                    2040
cctgaggaga aaagctggac atatactggg cttcacactt atcttatggc ttggcagaat
                                                                    2100
ctttgtagtg tgtgggatct ctgaaggccc tatttaagtt tttcttcgtt actttgctgc
                                                                    2160
```

aaaaaaaaca cttaatattt cagactgtta caggaaacac cctttagtct gtcabtgaa

2220

```
ttcagagcac tgaaaggtgt taaattgggg tatgtggttt gattgataaa aagttacctc
                                                                   2280
tcagtatttt gtgtcactga gaagctttac aatggatgct tttgaaaacaa gtatcagcaa
                                                                   2340
                                                                   2400
aaggatttgt tttcactctg ggaggagagg gtggagaaag cacttgcttt catcctctgg
                                                                   2460
catcggaaac tcccctatgc acttgaagat ggtttaaaag attaaagaaa cgattaagag
                                                                    2520
aaaaggttgg aagctttata ctaaatgggc tccttcatgg tgacgccccg tcaaccacaa
                                                                    2580
tcaaqaactg aggcctgagg ctggttgtac aatgcccacg cctgcctggc tgctttcacc
                                                                  2640
tgggagtgct ttcgatgtgg gcacctgggc ttcctagggc tgcttctgagtggttctttc
                                                                    2700
acgtgttgtg tccatagctt tagtcttcct aaataagatc cacccacacc taagtcacag
aatttctaag ttccccaact actctcacac ccttttaaag ataaagtatg ttgtaaccag
                                                                    2760
gatgtcttaa atgattcttt gtgtaccttt tctgtcatat tcagaaaccg ttttgtgcct
                                                                    2820
                                                                   2880
gctgggagta attcctttag caattaagta tttggtagct gaataagggg tcagaacttc
                                                                    2940
tgaaaccaga gatctgtaat catctctatt ggcctggggt gcctgtgcta taaatgagtt
tcttcacatg aaaaacacag ccagcccaag atgacttatc tgggtttagg attcaatagt
                                                                    3000
attcactaac tgcttattac atgagcaatt tcatcaaatc tccaactct taaaggatgc
                                                                   3060
                                                                    3120
tttcggaaaa cacgctgtat acctagatga tgactaaatg caaaatcctt gggctttggt
                                                                    3180
ttttttctag taaggatttt aaataactgc cgacttcaaa agtgttctta aaacgaaaga
                                                                    3240
taatgttaag aaaaatttga aagctttgga aaaccaaatt tgtaatatca ttgtattttt
                                                                    3300
3302
<210> 397
<211> 2227
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (289)..(289)
<223> n equals a,t,g, or c
<400> 397
cggacgcgtg ggtcgaccca cgcgtccggg aaaaarggaa aaratgccgt gtaaaatctc
                                                                      60
gttctgtgtc tgaattgccg taggctcaga tcttcatttg aggttctgtg tctgaattgc
                                                                     120
cgtaggctca gatcttcatt tgaggttatg ttctataagt taacgttgat cttgtgtgag
                                                                     180
ctttcggtag ctggagtaac acaggcggcc tcacagcgac ctctccagcg ccttccaagg
                                                                     240
                                                                     300
cacatetgea gecagegtaa teeteetggg agatgeetee teaaggeent geteeagaee
acgtggggar ggcctgacar ccaattccca ggctgtcccc acccttgrag agtgacccta
                                                                     360
                                                                    420
aacgctagac agatggggaa tgggaaagaa aagaægctg cagacctcaa gttaaaattc
                                                                     480
cctcaaaaac gtttttattt atctgctttt tctgaaagga taaaggcttt ttgaaaatta
                                                                     540
ttttctaaca aataacatga acacttctag aaaccctaga aaaacacaaa gtattcaaaa
tagaaagaaa aattacccat tactctttaa gccagcatta tccattgcgg tgcttttgga
                                                                     600
                                                                     660
gttgggtgag gccgtagcct ctgccaagtc aaggagcccg gtggtggctg tggcattcct
                                                                     720
gcagggttgt tttttttct ttgagatgga gtctcactct tgtcacccca gctggaatgt
ggtggtgtaa acagctcact gcagccttga ccctgaggct caagcgatcc ttctgccttg
                                                                     780
                                                                    840
qcctcctgag tagctgggat cccaggcgag agtcaccaca ccctgtccat gttcctgcag
                                                                     900
gtcttgatat gcgaggacgc tgtgtcttcc ctgccacatt ttcttcttct ttcttgagac
                                                                     960
agaccettge tecateacce aggeragagt gtggtsgtge gaacaegget caetgeagee
tcgaccctca ggctcaagcg atcctcacgc ctcggacccc caaagtgctg ggatcacagg 1020
cgagagtcac catgctggcc tgaatcttca gggtatttta cggttgaagt gtcacttact
                                                                    1080
                                                                    1140
tarccatscc tgtttcaaga gtgtaggtgg tcaccctgtc tctgycgctg acctggcctg
                                                                    1200
gaccctcggc tgtgagaggg aggggtgggc tgggctggag gaacctraag ccctcgtgat
                                                                   1260
gtcacaagcc catctggctg ggc&cccct gctgtgtcct gagctgcaca tgccccaggt
ggcccccaca gcagaggcga gccactgrag ggtgragggc ttccacggac ggtcttcagg
                                                                    1320
ggragaagaa gggcccaggc ccccaggaga ctcaggagac cagagcctgg ggtcaggggc
                                                                    1380
tyagcagggg ctyarccagg gctggatgtc cggagccagc cccgmagccc tgkgkcttt
                                                                   1440
gttcttcgca ctcccaccgt ccgtgtgaac agctccagcc ccacctgcgc ctccctgtgc
                                                                    1500
tgggctccat cagggagccc agaagacgtg tgtgcttctg aaattgggtc cctacatgcc
                                                                    1560
```

```
1620
tttqtcccag tgcaccttgc tccttccatt tactatcgag atttaaatgc ctgttttctc
                                                                   1680
cccaqaqqtt qacqqatata ttcaqacqtt acgacacgga tcaggacggc tggattcagg
                                                                   1740
tgtcgtacga acagtacctg tccatggtct tcagtatcgt atgaccctgg cctctcgtga
                                                                   1800
agaqcaqcac aacatggaaa gagccaaaat gtcacagttc ctatctgtga gggaatggag
                                                                  1860
cacaggtgca gttagatgct gttcttcctt tagattttgt cacgtggggacccagctgta
                                                                   1920
catatgtgga taagctgatt aatggttttg caactgtaat agtagctgta tcgttctaat
                                                                   1980
gcagacattg gatttggtga ctgtctcatt gtgccatgag gtaaatgtaa tgtttcaggc
                                                                   2040
attctgcttg caaaaaaatc tatcatgtgc ttttctagat gtctctggyt ctatagtgca
aatgctttta ttægccaata ggaattttaa aataacatgg aacttacaca aaaggctttt
                                                                   2100
catgtgcctt actttttaa aaaggagttt attgtattca ttggaatatg tgacgtaagc
                                                                   2160
2220
                                                                  2227
<210> 398
<211> 2214
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (289)..(289)
<223> n equals a,t,g, or c
<400> 398
cggacgcgtg ggtcgaccca cgcgtccggg aaaaarggaa aaratgccgt gtaaaatctc
                                                                     60
                                                                    120
qttctqtqtc tqaattqccq taggctcaga tcttcatttg aggttctgtg tctgaattgc
                                                                    180
cgtaggctca gatcttcatt tgaggttatg ttctataagt taacgttgat cttgtgtgag
                                                                     240
ctttcggtag ctggagtaac acaggcggcc tcacagcgac ctctccagcg ccttccaagg
cacatotgca gocagogtam tootootggg agatgcotootcaaggcont gotocagaco
                                                                    300
acgtgggrar ggcctgacaa gccaattccc aggctgtccc cacccttgra gagtgaccct
                                                                     360
                                                                     420
aaacgctaga cagatgggga atgggaaaga aaagaaagct gcagacctca agttaaaatt
ccctcaaaaa cgtttttatt tatctgcttt ttctgaaagg ataaaggctt tttgaaaatt
                                                                     480
attttctaac aaataacatg aacacttcta gaaaccctag aaaaacacaa agtattcaaa
                                                                     540
                                                                     600
atagaaagaa aaattaccca ttactcttta agccagcatt atccattgcg gtgcttttgg
agttgggtga ggccgtagcc tctgccaagt caaggagccc ggtggtggct gtggcattcc
                                                                     660
                                                                    720
tgcagggttg tttttttttc tttgagatgg agtctactc ttgtcacccc agctggaatg
                                                                     780
tggtggtgta aacagctcac tgcagccttg accctgaggc tcaagcgatc cttctgcctt
                                                                     840
ggcctcctga gtagctggga tcccaggcga gagtcaccac accctgtcca tgttcctgca
ggtcttgata tgcgaggacg ctgtgtcttc cctgccacat tttcttcttc tttcttgaga
                                                                     900
cagaccettg etecateace caggecagag tgtggtsgtg egaacaegge teactgeage
                                                                     960
ctcgaccctc aggctcaagc gatcctcacg cctcggaccc ccaaagtgct gggatcacag
                                                                   1020
gcgagagtca ccatgctggc ctgaatcttc agggtatttr cggttgargt gycacttact
                                                                   1080
tarccatscc tgtttcaaga gtgtaggtggtcaccctgtc tctgccgctg acctggcctg
                                                                   1140
gaccetegge tgtgagaggg aggggtggge tgggetggag gaacetraag ceetegtgat
                                                                   1200
gtcacaagcc catctggctg ggcatcccct gctgtgtcct gagctgcaca tgccccaggt
                                                                   1260
                                                                  1320
ggccccaca gcagaggcga gccactgrag ggtgragggc ttccacggac ggtcttcagg
                                                                   1380
ggragaagaa gggcccaggc ccccaggaga ctcaggagac cagagcctgg ggtcaggggc
tmagcagggg ctyarccagg gctggatgtc cggagccagc cccgmagccc tgkgktcttt
                                                                   1440
gttcttcgca ctcccaccgt ccgtgtgaac agctccagcc ccacctgcgc ctccctgtgc
                                                                   1500
                                                                   1560
tgggctccat cagggagccc agaægacgtg tgtgcttctg aaattgggtc cctacatgcc
                                                                    1620
tttgtcccag tgcaccttgc tccttccatt tactatcgag atttaaatgc ctgtttctc
                                                                   1680
cccagaggtt gacggatata ttcagacgtt acgacacgga tcaggacggc tggattcagg
tgtcgtacga acagtacctg tccatggtct tcagtatcgt atgaccctgg cctotgtga
                                                                  1740
agagcagcac aacatggaaa gagccaaaat gtcacagttc ctatctgtga gggaatggag
                                                                   1800
                                                                    1860
cacaggtgca gttagatgct gttcttcctt tagattttgt cacgtgggga cccagctgta
                                                                   1920
catatgtgga taagctgatt aatggttttg caactgtaat agtagctgta tcgttctaat
                                                                   1980
```

gcagacattg gatttggtga ctgtctcatt gtgccatgag gtaaatgtaa tgtttcaggc

```
attctgcttg caaaaaaatc tatcatgtgc ttttctagat gtctctggtt ctatagtgca
                                                                   2040
                                                                   2100
aatgctttta ttagccaata ggaattttaa aataacatgg aacttacaca aaaggctttt
                                                                  2160
catgtgcctt actttttaa aaaggagttt attgtattca ttggaatatgtgacgtaagc
                                                                   2214
aataaaqqqa atqttaqacq tgtaaaaaaaa aaaaaaaaa aaaaaaaaa aaag
<210> 399
<211> 1145
<212> DNA
<213> Homo sapiens
<400> 399
ttttttttt ttttttt ttgactgaac taagtggctt ttttattaga gaaagccaga
                                                                     60
attacaaaag acttcccttt tcttggggta tggctgtctc agcacaatac tcaacataac
                                                                    120
                                                                    180
tgcagaactg atgtggctca ggcaccctgg ttttaattcc ttgaggatct ggcaattggc
                                                                    240
ttacgcaaaa ggtcaccatt tgaggtcctg ccttactaat tatgtgctgc ccaacaacta
                                                                   300
aatttgtaat ttgtttttct ctagtttgag cagggtctga attttttca ttatttcctt
ttttgccagc agacagactt gagtctgtaa agacaagcaa atacactgac agaagtttac
                                                                    360
catagtttct aaaatgtaaa aaagaaaacc cccaaaaagac tcaagaaaat tagaccacaa
                                                                    420
attttgcatt gttcattgta gcactattgg taataaaata acaaatgttt gtgcattttt
                                                                    480
atgtgaagat ccttctcgta tttcatttgg aaagatgagc aagaggtctg cttccttcat
                                                                    540
tttacttccc cttctgtttt tgaaaggcag tttcgccaag cttaatgcaa gaatatctga
                                                                     600
                                                                     660
ctgtttagaa gaaagatatt gccacaatct ctggatggtt ttccagggtt gtgttattac
tgagcttcat ctttccagaa tgagcaaaac actgtccagt cttgttacg attttgtaat
                                                                    720
                                                                    780
aaatqtqtac attttttta aatttttgga catcacatga ataaaggtat gtatgtacga
                                                                    840
atgtgtatat attatata tgacatctat tttggaaaat gtttgccctg ctgtacctca
                                                                     900
tttttaggag gtgtgcatgg atgcaatata tgaaaatggg acattctgga actgctggtc
                                                                    960
aggggacttt gtcgccctgt gcactaaaag ggccagattt tcagcagcca aggacatcca
tacccaagtg aatgtgatgg gacttaaaag aagtgaactg agacaattca ctctggctgt
                                                                   1020
                                                                   1080
ttgaacagca gcgtttcata ggaagagaaa aaaagatcaa tcttgtattt tctgaccaca
taaaggcttc ttctctttgt aataaagtag aaaagct¢c ctcaaaaaaa aaaaaaaaa
                                                                   1140
                                                                    1145
aaaaa
<210> 400
<211> 717
<212> DNA
<213> Homo sapiens
<400> 400
ggcacgaget agetgeegee accegaacag cetgteetgg tgeecegget eeetgeeeeg
                                                                      60
cgcccagtca tgaccctgcg cccctcactc ctcccgctcc atctgctgct gctgctgctg
                                                                     120
ctcagtgcgg cggtgtgccg ggctgaggct gggctcgaaa ccgaaagtcc cgtccggacc
                                                                     180
ctccaagtgg agaccctggt ggagccccca gaaccatgtg ccgagcccgc tgcttttgga
                                                                     240
gacacgette acatacaeta caegggaage ttggtag#g gacgtattat tgacacetee
                                                                    300
                                                                     360
ctgaccagag accetetggt tatagaactt ggccaaaagc aggtgattee aggtetggag
                                                                     420
caqaqtcttc tcqacatgtg tgtgggagag aagcgaaggg caatcattcc ttctcacttg
                                                                     480
gcctatggaa aacggggatt tccaccatct gtcccagcgg atgcagtggt gcagtatgac
                                                                     540
gtggagctga ttgcactaat ccgagccaac tactggctaa agctggtgaa gggcattttg
cctctggtag ggatggccat ggtgccagcc ctcctgggcc tcattgggta tcacctatac
                                                                     600
agaaaggcca atagacccaa agtctccaaa aagaagctca aggaagagaa acgaaacaag
                                                                     660
717
<210> 401
<211> 713
<212> DNA
<213> Homo sapiens
<220>
```

```
<221> misc_feature
<222> (27) ... (27)
<223> n equals a,t,g, or c
<400> 401
                                                                       60
ccgcgggaac gctgtcctgg ctgccgncac ccgaacagcc tgtcctggtg ccccggctcc
                                                                      120
ctgccccgcg cccagtcatg accctgcgcc cctcactcct cccgctccat ctgctgctgc
                                                                      180
tgctgctgct cagtgcggcg gtgtgccggg ctgaggctgg gctcgaaacc gaaagtcccg
tccggaccct ccaagtggag accctggtgg agcccccaga accatgtgcc gagcccgctg
                                                                      240
                                                                      300
cttttggaga cacgcttcac atacactaca @ggaaagctt ggtagatgga cgtattattg
acacctccct gaccagagac cctctggtta tagaacttgg ccaaaagcag gtgattccag
                                                                      360
gtctggagca gagtcttctc gacatgtgtg tgggagagaa gcgaagggca atcattcctt
                                                                      420
ctcacttggc ctatggaaaa cggggatttc caccatctgt cccagcggat gcagtggtgc
                                                                     480
                                                                      540
agtatgacgt ggagctgatt gcactaatcc gagccaacta ctggctaaag ctggtgaagg
                                                                      600
gcattttgcc tctggtaggg atggccatgg tgccaccctc ctgggcctca ttgggtatca
cctatacaga aaggccaata gacccaaagt ctccaaaaag aagctcaagg aagagaaacg
                                                                      660
                                                                      713
aaacaagagc aaaaagaaat aataa&aat aaattttaaa aaacttaaaa aaa
<210> 402
<211> 802
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (337)..(337)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (359)..(359)
<223> n equals a,t,g, or c
<400> 402
ggtgggtgac cagagagtcc tgtctatcct aggaggagaa cattcagccc aaatcccagc
                                                                        60
                                                                       120
cccatcatgc acagatcaga gccatttctg aaaatgtcgc tgctgattct gcttttcctg
                                                                       180
ggattggcag aagcctgtac tcctcgtgaa gtcaacttgc tgaaagggat cataggtctc
                                                                      240
atgagcagac tgtcaccgga tgagatccta ggcttgctga gcctccaagt actgcatgaa
                                                                       300
gaaacaagtg gctgcaagga ggaagttaaa cccttctcag gcaccacccc atccaggaaa
ccactcccca agagggaaga acacgtggaa yttcctngaa atgcgsctac atggtgrtng
                                                                       360
acctacctct tcgtatccta caacaaaggg gactggttca ctttttcctc caagtgtta
                                                                      420
                                                                       480
ctgccaytac tgtaacttgg aactggacat cagggatgat ccctgctgtt ctttctagtg
agcctgctcc atctcagctt agccttcaca aggcctccat ctcccaggca ttctaacctc
                                                                       540
tgaagaaagc tctctgtccc ctggactgcc tgtgtggagg gtaatgaact gggtccttta
                                                                       600
                                                                       660
aggaatggca cctgggtgcc cagaggcatg gccagaaggt gtctgtgggg gccatgcctt
                                                                       720
agggggatgc acccagggcg gctgagagag caactgcagg agtttcccct aaaatctctc
                                                                       780
ctccagatcg ttctcgaact ttccccacta cttccataat aaaatgtata cttgttgaaa
                                                                      802
aaaaaaaaa aaaaaactcg ag
<210> 403
<211> 1186
<212> DNA
<213> Homo sapiens
<400> 403
gaattcggca cgagattgaa tgttccagat aatccctttc ccagtcctgc ctgacatctg
                                                                        60
                                                                       120
ggtagggggt ttgtccctgg aattctggga cactggctgg ggtttgagga gagaagccag
```

```
tacctacctg gctgcaggat gaagctggcc agtggcttct tggttttgtg gctcagcctt
                                                                      180
gggggtggcc tggctcagag cgacacgagc cctgacacgg aggagtccta ttcagactgg
                                                                      240
ggccttcggc acctccgggg aagctttgaa tccgtcaata gctacttcga ttcttttctg
                                                                       300
gagctgctgg gagggaagaa tggagtctgt cagtacaggt gccghatgg aaaggcacca
                                                                      360
atgcccagac ctggctacaa gccccaagag cccaatggct gcggctccta tttcctgggt
                                                                       420
ctcaaggtac cagaaagtat ggacttgggc attccagcaa tgacaaagtg ctgcaaccag
                                                                       480
ctggatgtct gttatgacac ttgcggtgcc aacaaatatc gctgtgatgc aaaattccga
                                                                      540
tggtgtctcc amtcgatctg ctctgacctt aagcggagtc tgggctttgt ctccaaagtg
                                                                      600
gaagcctgtg attccctggt tgacactgtg ttcaacaccg tgtggacctt gggctgccgc
                                                                      660
ccctttatga atagtcagcg ggcagcttgc atctgtgcag aggaggagaa ggaagagtta
                                                                      720
tgaggaagaa gtgattcctt cctggttttg agtgacaccacagctgtcag ccttcaagat
                                                                      780
gtcaagtctt cgartcagcg tgactcattc gttcttccaa cagtttggac accacaaagc
                                                                      840
aggagaaagg gaacattttt ctacagctgg aaagtgagtc ctatcctttg aggaaatttg
                                                                      900
aaaaaagaca tggagtggtt tgaaagctac tcttcattta agactgctct ccccaaccaa
                                                                      960
gacacatttg cctggaaatt cagttcttag cttaaagact aaaatgcaag caaaccctgc
                                                                     1020
aattcctgga cctgatagtt atattcatga gtgaaattgt ggggagtcca gccatttggg
                                                                     1080
aggcaatgac tttctgctgg cccatgtttc agttgccagt aagcttctca catttaataa
                                                                     1140
agtgtacttt ttagaacatt tggaaaaaaa aaamaaaaa actcga
                                                                     1186
<210> 404
<211> 470
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (444)..(444)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (458)..(458)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (469)..(470)
<223> n equals a,t,g, or c
<400> 404
ctgcaggaat tcggcacgag cggcacgagt gccaatacaa ctgctgtcgc cctcaatgcg
                                                                       60
ccagcccacc ctgcaaggct cctaccacct ggacccgcag tagccctcct actgctccgg
                                                                      120
gggagctgca gtctctgttg ctgccæcaa ccgcataagg cgagctgcaa agccatgcca
                                                                      180
tctgcaggct ccaatgtacc atagatgact cctcctcttc ctcctcctcc agcctggctt
                                                                      240
ggagcagcta gatgggcaaa gctagaaaag cctaaaacgg gatgcaggga gtggtagcat
                                                                      300
tagagcetca cettgteacg etggceactg ggtggeaggg accagtttea geaaaggae
                                                                     360
teacacecae cetecaaagt ecageetetm mttetggeaa aagetggeea ggaactgggg
                                                                      420
cccagggtga gtgggtgtgc tttnccaaaa accagggnag gttatagcnn
                                                                      470
<210> 405
<211> 1821
<212> DNA
<213> Homo sapiens
<400> 405
ggaattegge aegagegtgg atceægatg gegaeggega tggattggtt geegtggtet
                                                                       60
ttactgcttt tctccctgat gtgtgaaaca agcgccttct atgtgcctgg ggtcgcgcct
                                                                      120
```

```
atcaacttcc accagaacga tcccgtagaa atcaaggctg tgaagctcac cagctctcga
                                                                    180
                                                                   240
acccagctac cttatgaata ctattcactg cccttctgcc agcccagcaa gataactac
                                                                    300
aaggcagaga atctgggaga ggtgctgaga ggggaccgga ttgtcaacac ccctttccag
gttctcatga acagcgagaa gaagtgtgaa gttctgtgca gccagtccaa caagccagtg
                                                                    360
                                                                    420
accetgacag tggagcagag ccgactcgtg gccgagcgga tcacagaaga ctactacgtc
                                                                    480
cacctcattg ctgacaacct gcctgtggcc acccggctgg agctctactc caaccgagac
                                                                    540
agcgatgaca agaagaagga aagtgatatc aaatgggcct ctcgctggga cacttactga
ccatgagtga cgtccagatc cactggtttt ctatcattaa ctccgttgtt gtggtcttct
                                                                    600
tcctgtcagg tatcctgagc atgattatca ttcggaccct ccggaaggacattgccaact
                                                                   660
                                                                    720
acaacaagga ggatgacatt gaagacacca tggaggagtc tgggtggaag ttggtgcacg
                                                                    780
gcgacgtctt caggcccccc ccagtacccc atgatcctca gctccctgct gggctcaggc
attcagctgt tctgtatgat cctcatcgtc atctttgtag ccatgcttgg gatgctgtcg
                                                                    840
                                                                    900
ccctccagcc ggggagctct catgaccaca gcctgcttcc tcttcatgtt catgggggtg
                                                                    960
tttggcggat tttctgctgg ccgtctgtac cgcactttaa aaggccatcg gtggaagaaa
                                                                    1020
ggagccttct gtacggcaac tctgtaccct ggtgtggttt ttggcatctg cttcgtattg
aattgcttca tttggggaaa gcactcatca ggagcggtgc cctttccac catggtggct
                                                                   1080
ctgctgtgca tgtggttcgg gatctccctg cccctcgtct acttgggcta ctacttcggc
                                                                    1140
                                                                    1200
ttccgaaagc agccatatga caaccctgtg cgcaccaacc agattccccg gcagatcccc
gagcagcggt ggtacatgaa ccgatttgtg ggcatcctca tggctgggat cttgccttcg
                                                                    1260
gcgccatgtt catcgagctc ttcttcatct tcagtgctat ctgggagaat cagttctatt
                                                                   1320
acctctttgg cttcctgttc cttgttttca tcatcctggt ggtatcctgt tcacaaatca
                                                                    1380
                                                                    1440
gcatcgtcat ggtgtacttc cagctgtgtg cagaggatta ccgctggtgg tggagaaatt
tectagtete egggggetet geattetaeg teetggtttatgeeatettt tatttegtta
                                                                   1500
acaagtgact gcagcgccaa gcggcatcca ccaagcatca agttggagaa aagggaaccc
                                                                    1560
aagcagtaga gagcgatatt ggagtctttt gttcattcaa atcttggatt ttttttttc
                                                                    1620
                                                                    1680
cctaagagat tctctttta gggggaatgg gaaacggaca cctcataaag ggttcaaaga
                                                                    1740
tcatcaattt ttctgacttt ttaaatcatt atcattatta tttttaatta aaaaaatgcc
tgtatgcctt tttttggtcg gattgtaaat aaatatacca ttgtcctaca aaaaaaaaa
                                                                    1800
                                                                    1821
aaaaaaactc gaggggggc c
<210> 406
<211> 1094
<212> DNA
<213> Homo sapiens
<400> 406
                                                                      60
ccacgcgtcc ggtgcacggc gacgtcttca ggccccccca gtaccccatg atcctcagct
ccctgctggg ctcaggcatt cagctgttct gtatgatcct catcgtcatc tttgtagcca
                                                                     120
tgcttgggat gctgtcgccc tccagccggg gagctctcat gaccacagcc tgcttcctct
                                                                     180
tcatgttcat gggggtgttt ggcggatttt ctgctggccg tctgtaccgc actttaaaag
                                                                     240
gccatcggtg gaagaaagga gccttctgta cggcaactct gtaccctggt gtggtttttg
                                                                     300
                                                                     360
gcatctgctt cgtattgaat tgcttcattt ggggaaagca ctcatcagga gcggtgccct
ttcccaccat ggtggctctg ctgtgcatgt ggtcgggat ctccctgccc ctcgtctact
                                                                    420
                                                                     480
tgggctacta cttcggcttc cgaaagcagc catatgacaa ccctgtgcgc accaaccaga
                                                                     540
ttccccggca gatccccgag cagcggtggt acatgaaccg atttgtgggc atcctcatgg
                                                                     030
ctgggatctt gcccttcggc gccatgttca tcgagctctt cttcatcttc agtgctatct
gggagaatca gttctattac ctctttggct tcctgttcct tgttttcatc atcctggtgg
                                                                     660
tatcctgttc acaaatcagc atcgtcatgg tgtacttcca gctgtgtgca gaggattacc
                                                                     720
gctggtggtg gagaaatttc ctagtctccg ggggctctgc attctacgtc ctggtttatg
                                                                     780
                                                                     840
ccatctttta tttcgttaac aagctggæa tcgtggagtt catcccctct ctcctctact
                                                                     900
ttggctacac ggccctcatg gtcttgtcct tctggctgct aacgggtacc atcggcttct
                                                                     960
atgcagccta catgtttgtt cgcaagatct atgctgctgt gaagatagac tgattggagt
                                                                   1020
ggaccacggc caagcctgct ccgtcctcgg acaggaagcc accctgcgtg ggggactgæ
                                                                    1080
1094
aaaaaaaaa aaaa
```

```
<211> 1932
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (293)..(293)
<223> n equals a,t,g, or c
<400> 407
                                                                       60
ggcacgaggc cgccctgggt gtcagcggct cggctcccgc gcacgctccg gccgtcgcgc
ascteggeac etgeaggtee gtgegteeeg eggetggege eeetgaetee gteeeggeea
                                                                      120
gggagggcca tgatttccct cccggggccc ctggtgacca acttgctgcg gttttgttc
                                                                     180
ctggggctga gtgccctcgc gccccctcg cgggcccagc tgcaactgca cttgcccgcc
                                                                      240
                                                                      300
aaccggttgc aggcggtgga gggaggggaa gtggtgcttc cagcgtggta cancttgcac
ggggaggtgt cttcatccca gccatgggag gtgccctttg tgatgtggtt cttcaaacag
                                                                      360
aaagaaaagg aggatcaggt gttgtcctac atcaatgggg tcacaacaag caaacctgga
                                                                      420
gtatccttgg tetactecat gecetecegg aacetgteee tgeggetgga gggteteeag
                                                                      480
gagaaagact ctggccccta cagctgctcc gtgaatgtgc aagacaaaca aggcaaatct
                                                                      540
aggggccaca gcatcaaaac cttagaactc aatgtactgg ttcctccagctcctatcc
                                                                     600
tgccgtctcc agggtgtgcc ccatgtgggg gcaaacgtga ccctgagctg ccagtctcca
                                                                      660
                                                                      720
aggagtaagc ccgctgtcca ataccagtgg gatcggcagc ttccatcctt ccagactttc
                                                                      780
tttgcaccag cattagatgt catccgtggg tctttaagcc tcaccaacct ttcgtcttcc
atggctggag tctatgtctg caaggcccac aatgaggtgg gcactgccaa tgtaatgtga
                                                                      840
cgctggaagt gagcacaggg cctggagctg cagtggttgc tggagctgtt gtgggtaccc
                                                                      900
tggttggact ggggttgctg gctgggctgg tcctcttgta ccaccgccgg ggcaaggccc
                                                                      960
tggaggagcc agccaatgat atcaaggagg atgccattgc tcccggacc ctgccctggc
                                                                    1020
ccaagagete agacacaate tecaagaatg ggaceettte etetgteace teegeacgag
                                                                     1080
                                                                     1140
ccctccggcc accccatggc cctcccaggc ctggtgcatt gacccccacg cccagtctct
ccagccagge cetgeeetea ecaagaetge ccaegaeaga tggggeeeae ceteaaceaa
                                                                     1200
                                                                     1260
tatcccccat ccctggtggg gtttcttcct ctggcttgag ccgcatgggt gctgtgcctg
tgatggtgcc tgcccagagt caagctggct ctctggtatg atgaccccac cactcattgg
                                                                     1320
ctaaaggatt tggggtctct ccttcctata rgggtcacct ctagcacaga ggcctgagtc
                                                                     1380
atgggaaaga gtcacactcc tgacccttag tactctgcc ccacctctct ttactgtggg
                                                                    1440
aaaaccatct cagtaagacc taagtgtcca ggagacagaa ggagaagagg aagtggatct
                                                                     1500
ggaattggga ggagcctcca cccacccctg actcctcctt atgaagccag ctgctgaaat
                                                                     1560
tagctactca ccaagagtga ggggcagaga cttccagtca ctgagtctcc caggccccct
                                                                     1620
tgatetgtae eccaececta tetaacaeca ecettggete ecaetecage tecetgtatt
                                                                     1680
gatataacct gtcaggctgg cttggttagg ttttactggg gcagaggata gggaatctct
                                                                     1740
tattaaaact aacatgaaat atgtgttgtt ttcatttgca aatttaaata aagatacata
                                                                     1800
atgtttgtat garaaaaaaa aaaaaaaaaa aamaagggcg gccgctctag aggatccctc
                                                                    1860
gaggggccca agcttacgcg tgcatgcgac gtcatagctc tctccctata gtgagtcgta
                                                                     1920
ttataagcta gg
                                                                     1932
<210> 408
<211> 711
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (345)..(345)
<223> n equals a,t,g, or c
<400> 408
ggcacgagcg aagaccctgt teggaccctg eccegattee agacteaggt agategtegg
                                                                       60
cataccetet accgtggaca ccaggcagee etggggetga tggagagaga tcaggtatee
                                                                      120
```

```
cccagggagt aggggctacc ttgaggggat gatagacctc ccccactccc agtgkkactc
                                                                     180
                                                                      240
tggaaatatg aaggaactag ggagtggaag agatttcaga gctggggaga ggagttcctc
                                                                      300
ccttcaaagc cagcaactgc ctttggggaa tgtcgggggg tctctccttt ctcctgcttg
tttraggtgg tacacagtcc ccccttcamc tggsgggaag ctgtnccgga caractcatc
                                                                     360
teagetttee ettggggeag gateggggge ageageteea geagaaaeag eaggatetgg
                                                                      420
                                                                      480
agcaggaagg cetegaggee acacagggge tgetggeegg egagtgggee ecaceetet
ggragctggg cagcctcttc caggccttcg tgaagaggga gagccaggct tatgcgtaag
                                                                      540
cttcatagct tctgctggcc tggggtggac ccaggacccc tggggcctgg gtgccctgag
                                                                     600
tgqtqqtaaa qtgqaqcaat cccttcacgc tccttggcca tgttctgagc ggccagcttg
                                                                      660
                                                                      711
gcctttgcct taataaatgt gctttatttt caaaaaaaaa aaaaaaaaac t
<210> 409
<211> 973
<212> DNA
<213> Homo sapiens
<400> 409
                                                                       60
ggcacgagcc cagcggaagc caagccacca ggccccccag cgtccacgcg gagcatgaac
attgaggatg gcgcgtgccc gcggctcccc gtgccccccg ctgccgcccg gtaggatgtc
                                                                      120
                                                                      180
etggccccac ggggcattge tettectetg getettetee ccaeccetgg gggccggtgg
                                                                     240
aggtggagtg gccgtgacgt ctgc@ccgg agggggctcc.ccgccggcca cctcctgccc
cgtggcctgc tcctgcagca accaggccag ccgggtgatc tgcacacgga gagacctggc
                                                                      300
                                                                      360
cgaggtccca gccagcatcc cggtcaacac gcggtacctg aacctgcaag agaacggcat
                                                                     420
ccaggtgatc cggacggaca cgttcaagca cctgcggcac ctggagattc tgcagtgag
                                                                      480
caagaacctg gtgcgcaaga tcgaggtggg cgccttcaac gggctgccca gcctcaacac
gctggagctt tttgacaacc ggctgaccac ggtgcccacg caggccttcg agtacctgtc
                                                                      540
                                                                      600
caagetgegg gagetetgge tgeggaacaa ceceategag ageateeect eetaegeett
                                                                      660
caaccgcgtg ccctcgctgc ggcgcctgga cctgggcgag ctcaagcggc tggaatacat
                                                                      720
ctcggaggcg gccttcgagg ggctggtcaa cctgcgctac ctcaacctgg gcatgtgcaa
                                                                      780
cctcaaggac atccccaacc tgacggccct ggtgcgcctg gaggagctgg agctgtcggg
                                                                     840
caaceggetg gacetgatee geeegggete ettecagggt etcaecageetgegeaaget
                                                                      900
gtggctcatg cacgcccagg tagccaccat cgagcgcaac gccttcgacg acctcaagtc
gctggaggag ctcaacctgt cccacaacaa cctgatgtcg ctgccccacg acctcttcac
                                                                      960
                                                                      973
gcccctgcac cgc
<210> 410
<211> 984
<212> DNA
<213> Homo sapiens
<400> 410
                                                                       60
gaatteggea egageeeage ggaageeaag eeaceaggee eeeeagegte eacgeggage
atgaacattg aggatggcgc gtgcccgcgg ctccccgtgc cccccgctgc cgcccggtag
                                                                      120
                                                                     180
gatgtcctgg ccccacgggg cattgctctt cctctggctc ttctccccacccctgggggc
                                                                      240
eggtggaggt ggagtggeeg tgaegtetge egeeggaggg ggeteeeege eggeeaeete
ctgccccgtg gcctgctcct gcagcaacca ggccagccgg gtgatctgca cacggagaga
                                                                      300
mctggccgag gtcccagcca gcatcccggt caacacgcgg tacctgaacc tgcaagagaa
                                                                      360
                                                                      420
eggeatecag gtgateegga eggaeaegtt caageaeetg eggeaeetgg agattetgea
                                                                      480
gctgagcaag aacctggtgc gcaagatcga ggtgggcgcc ttcaacgggc tgcccagcct
caacacgctg gagctttttg acaaccggct gaccacggtg cccacgcagg ccttcgagta
                                                                      540
                                                                     600
cctgtccaag ctgcgggagc tctggctgcg gaacaacccc atcggagca tcccctccta
cgccttcaac cgcgtgccct cgctgcggcg cctggacctg ggcgagctca agcggctgga
                                                                      660
atacateteg gaggeggeet tegarggget ggteaacetg egetacetea acetgggeat
                                                                      720
gtgcaacete aaggacatee ceaactgacg geeetggtge geetggagga getggagetg
                                                                      780
tegggeaace ggetggaeet gateegeeeg ggeteettee agggteteac eageetgege
                                                                      840
                                                                      900
aagctgtggc tcatgcacgc ccaggtagcc accatcgagc gcaacgcctt cgacgacctc
aagtcgctgg aggagctcaa cctgtcccac aacaacctga tgtcgctgcc ccacgacctc
                                                                      960
```

```
984
ttcacqcccc tgcaccgcct cgta
<210> 411
<211> 553
<212> DNA
<213> Homo sapiens
<400> 411
gtgtgccgga tttggttagc tgagcccacc gagaggcgcc tgcaggatga aagctctctg
                                                                  60
                                                                 120
totoctocte etecetytee tygggetytt gytytetage aagaceetyt getecatyga
                                                                 180
agaagccatc aatgagagga tccaggaggt cgccggctcc ctaatattta gggcaataag
cagcattggc ctggagtgcc agagcgtcac ctccaggggg gacctggcta cttgccccg
                                                                 240
                                                                 300
aggettegee gteacegget geacttgtgg etcegeetgt ggetegtggg atgtgegee
                                                                360
420
tgtgcagccc tgaggtcgcg cgcagtggca acagcgcggg cggaggcggc tccaggtccg
                                                                 480
gagggttgcg ggggagctgg aaataaacct ggagatgatg atgatgatga tgatggaaaa
                                                                 540
553
aaaaaaaaa aaa
<210> 412
<211> 1614
<212> DNA
<213> Homo sapiens
<400> 412
                                                                  60
ggtgattggt agttactatg tggggacaca attacttggg ctgaaataat ccacctgttg
tggttggggt cctctggggc attccagggt gagaggtt& cactgccacc tgggccatgt
                                                                120
gggccggcac cagcattttg tggttacgaa ttctacagtc acaaatatct ttgggcaaat
                                                                 180
ccccttctat acctcaaggc agcttttggt ttgcaacccc actggccaga gggaagggcc
                                                                 240
agtcacttgg ctctctcact gccctgcgcc ccagatggtt ctagggctgc tgttttccct
                                                                 300
                                                                 360
tggccctgcc aacaccactg tttttacttc tgctcattgg ctgagtgcag tggttcctgg
                                                                 420
aagccagtgg cacgtttccc cgcgtagctc gcttatccca cagcacacac ccaagggttc
                                                                 480
tgttgctaac acgctgaatt aattctttgc tcatcttaca gagtgtgttt tgactgcccc
                                                                 540
catttctgag gccttgtaag gccagagctt tgtgcttca tcggcaggtt gggacttaga
                                                                 600
tggccgtgaa tgtttcctct ctgctgctgc agtaagtaag tgcccgcacc atagtgtgtt
                                                                 660
tggaggctga agttgaagcg aggctgtgag gggagatgga cgtgtgagga gggatgatgg
ggcttgagca aagtggggga ggggcaaagc agttggccca acacattccc caccctttg
                                                                 270
                                                                 780
agaggtctga ggcctgcaga cctggctcgg agcccacctg gtagtcctca gactgtgtgt
                                                                 840
agaaatgggg ggctgattct gctcagattc atcaggatga gtagaaggca cccagctctc
                                                                 900
accetggeet gacatgtgtg teeetgaga ggttacagte etetetgage etetgettee
                                                                 960
                                                                1020
catctggacc ctgctgggca gggcttctga gctccttagc actagcagga ggggctccag
                                                                1080
gggccctccc tccatggcag ccaggacagg actctaaaat gaggacagca gagctcgtgg
                                                               1140
qqqqctccca cqgacccqcc qtqqqcccaq qqqaqqcaqa qcctqaqcca acaqcaqtq
                                                                1200
tgctgtggac cgtggatcct gagggtggcc tggggcaagt accggctgag ggtccaggtg
                                                                1260
ggctttgtgt acctttgggt cctggggccc tggtgacttg gactccaggt tagagtcaag
tgacaggaga aaggctggtg gggccctgtg cttccgactt catttcgagt gatggcagtt
                                                                1320
cccaggaagg aatccacagc tgacggtggc tgacagatca gagaatggaa ggcgaggcag
                                                                1380
                                                                1440
gcgggcgtct gcgtgacctc aggtgcttgg ggcccagcag acccagagaa ccatttccac
taggccaggg tgccggaagt gtccacaggt cttagattcc ctgttcagat gaaaagattt
                                                                1500
                                                               1560
gtgcctttaa tgataaaagt gatctgcata gagtcaaaaa ttcaagccat ggtgataaaa
                                                                1614
tgcaagtaaa atccctgccc tcacctatcc caccctacta cacagagatg tcct
<210> 413
<211> 1087
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc feature
<222> (14)..(14)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (55)..(55)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (63)..(64)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (174)..(174)
<223> n equals a,t,g, or c
<400> 413
                                                                      60
caagttaaag taangtggcc ccggcaacca ataagtgttg tttttggag ggctngaaag
                                                                      120
ttnnaaagcg agggcttgta aaggggaaga tgggaccgtt gtgaaggaag gatgattggg
gctttgaagc aaaagtgggg gaagggggca aaggcagttg gcccaacaca ttcnccaccc
                                                                      180
ctttgagagg tctgaggcct gcagacctgg ctcggagccc acctggtagt cctcagactg
                                                                      240
                                                                      300
tgtgtgtgtg tgtgtgtgt tgtgtgtgtg tgtgtgtgt tgtgtgtaaa agagagaagt
                                                                      360
tgtggagaaa tggggggctg attctgctca gattcatcag gatgagtaga aggcacccag
                                                                      420
ctctcaccct ggcctgacat gtgtgtccct gagcaggtta cagkcctctc tgagcctctg
                                                                     480
cttcccatct ggaccctgct gggcagggct tctragctcc tagcactag caggagggc
                                                                      540
tccaggggcc ctcctccat ggcagccagg acaggactct aaaatgagga cagcagagct
                                                                      600
cgtggggggc tcccacggac ccgccktggg cccaggggag gcagagcctg agccaacagc
agtggtgctg tggaccgtgg atcctgaggg tggcctgggg caagtaccgg ctgagggtcc
                                                                      660
aggtgggctt tgtgtacctt tgggtcctgg ggccctggtg acttggactc caggttagag
                                                                      720
                                                                      780
tcaagtgaca ggagaaaggc tggtggggcc ctgtgcttcc gacttcattt cgagtgatgg
                                                                      840
cagttcccag qaaqqaatcc acagctgacg gtggctgaca gatcagagaa tggaaggcga
                                                                     900
ggcaggcggg cgtctgcgtg acctcaggtg cttgggccc agcagaccca gagaaccatt
                                                                      960
tccactaggc cagggtgccg gaagtgtcca caggtcttag attccctgtt cagatgaaaa
                                                                     1020
gatttgtgcc tttaatgata aaagtgatct gcatagagtc aaaaattcaa gccatgggta
                                                                     1080
taaaatgtca agtaaaatcc ctgccctcac ctatcccacc ctactacaca gagatgtcct
                                                                     1087
ctcgagg
<210> 414
<211> 1201
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (66)..(66)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1182)..(1182)
<223> n equals a,t,g, or c
```

```
<220>
<221> misc feature
<222> (1184)..(1184)
<223> n equals a,t,g, or c
<400> 414
                                                                   60
gaattccgga acaaawgcyg gagctccacc gcggtggcgg ccgctctaga actagtggat
cccctnkgct gcaggaattc ggcacgagct gctgtctgtg cttcgggatc ctgccccca
                                                                 120
gaagtcctcc aaggcttggt acttgctgcg tgtccaggtc ctgcagctgg tggcagctta
                                                                  180
ccttagcctc ccgtcaaaca acctctcaca ctccctgtgg gagcagctct gtgcccaagg
                                                                  240
                                                                  300
ctggcagaca cctgagatag ctctcataga ctcccataag ctcctccgaa gcatcatcct
cctgctgatg ggcagtgaca ttctctcaac tcagaaagca gctgtggaga catcgttttt
                                                                  360
ggactatggt gaaaatctgg tacaaaaatg gcaggttctt tcagaggtgc tgagctgctc
                                                                  420
                                                                  480
agagaagctg gtctgccacc tgggccgcct gggtagtgtg agtgaagcca aggccttttg
                                                                 540
cttggaggcc ctaaaactta caacaaagct gcagatacca cgccagtktgccctgttcct
                                                                  600
ggtgctgaag ggcgagctgg agctggcccg caatgacatt gatctctgtc agtcggacct
                                                                  660
gcagcaggtt ctgttcttgc ttgagtcttg cacagagttt ggtggggtga ctcagcacct
                                                                  720
ggactetgtg aagaaggtee acetgeagaa ggggaageag caggeecagg teeectgtee
tccacagctc ccagaggagg agctcttcct aagaggccct gctctagagc tggtgccact
                                                                  780
gtggccaagg agcctggccc catagcacct tctacaaact cctccccagt cttgaaaacc
                                                                  840
                                                                  900
aagccccage ccatacccaa cttcctgtcc cattcaccca cctgtgactg ctcgctctgc
                                                                 960
gccagccctg tcctcacagc agtctgtctg cgctgggtat tggtacggc aggggtgagg
                                                                 1020
ctggccatgg gccaccaagc ccagggtctg gatctgctgc aggtcgtgct gaagggctgt
cctgaagccg ctgagcgcct cacccaagct ctccaagctt ccctgaatca taaaacaccc
                                                                 1080
                                                                 1140
ccctccttgg ttccaagcct cttggatgag atttggctaa gcatacacac tgttgcactg
gagggcctga accagccate aaacgagagc ctgcagaagg tnencagtaa ggctgaagtt
                                                                 1200
                                                                 1201
<210> 415
<211> 628
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (567)..(567)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (596)..(596)
<223> n equals a,t,g, or c
<400> 415
ttgggaaget ggtmcscctg caggtaccgg tccggaattc ccgggtcgac ccacgcgtyc
                                                                   60
gttccagatt caattgaaag tgcattgcag ggtgatgaaa gatgtgtgct tgatactatg
                                                                  120
cgtttggttg accttctctt ggtgctatta tttgaaggac gaaaagcttt gccaaagtct
                                                                  180
                                                                  240
agtgctggat ctacaggcag aatcccagga ctccggagat tagatagttc tggggagcgc
                                                                  300
tcacatcggc agcttataga ttgtattcga agtaaagata ccgatgcact tatagatgca
attgacacag gaggtcagaa aatattttt taa&ataaa aagaaagttg tgagataacc
                                                                 360
atataggcag tttctagttt tcggacagta ctcttagaaa tccagataac aaagtggcac
                                                                  420
cccttcgata ttctccccta tccctgtgca taattatgta attatcagct tggttcttgg
                                                                  480
504
600
                                                                  628
aaaaaaaaa aaaaaaaa
```

```
<211> 425
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (367)..(367)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (380)..(380)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (408)..(408)
<223> n equals a,t,g, or c
<400> 416
atcgtgctca agtacatcat ggctggttgc cccttgtttc tgggtaatct ctgggagtg
                                                                    60
actgaccgcg acattgaccg ctacacggaa gctctgctgc aaggctggct tggaagcagg
                                                                    120
cccagggccc cccttctcta ctatgtaaac caggcmcgcc aagctccccg actcaagtat
                                                                    180
                                                                    240
cttattgggg ctgcacctat acctatggct tgcctgtctc tctgcggtaa ccccatggag
                                                                    300
ctgtcttatt qatgctaqaa qcctcataac tgttctacct ccaaggttag atttaatcct
                                                                    360
taggataact cttttaaagt gattttcccc agtgttttat atgaaacatt tccttttgat
                                                                     420
ttaaccncag ataataaagn tacatccatt taaaaaaaaa aaaaaaancc cgagggggg
                                                                    425
cccgg
<210> 417
<211> 1191
<212> DNA
<213> Homo sapiens
<400> 417
                                                                      60
gctqqqctqq aacacaaqar cccacagggc tgccgtccac actctcccgg tcagagtcct
qqqaccacat qqqqacqctq ccatggcttc ttgccttctt cattctgggt ctccaggctt
                                                                     120
                                                                    180
gggatactcc caccatcgtc tcccgcaagg agtggggggc aagaccgctc gcctgcaggg
                                                                     240
ccctgctgac cctgcctgtg gcctacatca tcacagacca gctcccaggg atgcagtgcc
agcagcagag cgtttgcagc cagatgctgc gggggttgca gtcccattcc gtctacacca
                                                                     300
taggctggtg cgacgtggcg tacaacttcc tggttgggga tgatggcagggtgtatgaag
                                                                    360
gtgttggctg gaacatccaa ggcttgcaca cccagggcta caacaacatt tccctgggca
                                                                     420
                                                                     480
tcgccttctt tggcaataag ataagcagca gtcccagccc tgctgcctta tcagctgcag
agggtctgat ctcctatgcc atccagaagg gtcacctgtc gcccaggtat attcagccac
                                                                     540
                                                                     600
ttcttctgaa agaægagacc tgcctggacc ctcaacatcc agtgatgccc agraaggttt
                                                                     660
gccccaacat catcaaacga tctgcttggg aagccagaga gacacactgc cctaaaatga
                                                                     720
acctcccagc caaatatgtc atcatcatcc acaccgctgg cacaagctgc actgtatcca
                                                                    780
cagactgcca gactgtcgtc cgaaacatac agtcctttca catggcaca cggaactttt
gtgacattgg atatcaataa ggccaggcgt ggcggcgatt acgtctgtaa tcccaggact
                                                                     840
                                                                     900
ttgggaggcc aaggcgggca gatcacttca ggccaggaat tcaagagcag cctggccaat
                                                                     960
atggcgaaac tctgtctcta ctgaaaacaa acaaacaaac aaacaaacaa acaaagaaac
                                                                    1020
aacaaaaatt agccgggtgt ggtggcacac gcctgtagtc ccagctactc aggaggctga
qgcataagaa ttgcttgaac cctggaggcg gaggttgcag tgagctgaga ttgggccacc
                                                                    1080
                                                                    1140
gcactccagt ctgggagaca gagtgagact gtctcaaaac aacaacaaa aaatccctaa
                                                                   1191
```

```
<211> 1626
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (525)..(525)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (542)..(542)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (562)..(562)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (607)..(607)
<223> n equals a,t,g, or c
<400> 418
ccacgcgtcc gacgcggcgc acgcggcagt cctgatggcc cggcatgggt taccgctgct
                                                                      60
                                                                    120
gcccctgctg tcgctcctgg tcggcgcdg gctcaagcta ggaaatggac aggctactag
catggtccaa ctgcagggtg ggagattcct gatgggaaca aattctccag acagcagaga
                                                                    180
                                                                     240
tggtgaaggg cctgtgcggg aggcgacagt gaaacccttt gccatcgaca tatttcctgt
                                                                   300
caccaacaaa gatttcaggg attttgtcag ggagaaaaag tatcggacag aagctgaga
                                                                     360
gtttggatgg agctttgtct ttgaggactt tgtctctgat gagctgagaa acaaagccac
ccagccaatg aagtctgtac tctggtggct tccagtggaa aaggcatttt ggaggcagcc
                                                                     420
tgcaggtcct ggctctggca tccgagagag actggagcac ccagtgttac acgtgagctg
                                                                     480
                                                                    540
gratgacgcc cgtgcctaat gtgcytkgsg ggggraaacg actgncccac sggagggaag
antggggagt ttttccgccc gnaggggggc ttgaarggtc caagtttacc ccatgggggg
                                                                     600
aactggnttc cagccaaacc gcaccaacct gtggcaggga aagttcccca agggagacaa
                                                                     660
                                                                    720
agctgaggat ggcttccatg gagtctcccc agtgaatgct ttccccgccc agacaacta
                                                                     780
cgggctctat gacctcctgg ggaacgtgtg ggagtggaca gcatcaccgt accaggctgc
tgagcaggac atgcgcgtcc tccggggggc atcctggatc gacacagctg atggctctgc
                                                                     840
caatcaccgg gcccgggtca ccaccaggat gggcaacact ccagattcag cctcagacaa
                                                                     900
                                                                    960
cctcggtttc cgctgtgctg cagacgcagg ccggccgcca ggggagctgt aagcagccgg
gtggtgacaa ggagaaaagc cttctagggt cactgtcatt ccctggccat gttgcaaaca
                                                                    1020
gcgcaattcc aagctcgaga gcttcagcct caggaaagaa cttccccttc cctgtctccc
                                                                    1080
atccctctgt ggcaggcgcc tctcaccagg gcaggagagg actcagctc ctgtgttttg
                                                                   1140
                                                                    1200
gagaaggggc ccaatgtgtg ttgacgatgg ctgggggcca ggtgtttctg ttagaggcca
                                                                    1260
agtattattg acacaggatt gcaaacacac aaacaattgg aacagagcac tctgaaaggc
                                                                    1320
cattttttaa gcattttaaa atctattctc tccccctttc tccctggatg attcaggaag
ctgmacattg tttcctcaag gcagaatttt cctggttctg ttttctcagc cagttgctgt
                                                                    1380
ggaaggagaa tgctttcttt gtggcctcat ctgtggtttc gtgtccctct gaaggaaact
                                                                    1440
agtttccact gtgtaacagg cagacatgta actatttaaa gcacagttca gtcctaaaag
                                                                    1500
ggtctgggag aaccagatga tgtactaggt gaagcattgc atgtgggaa tcacaaagca
                                                                   1560
                                                                    1620
1626
aaaaaa
<210> 419
<211> 2351
<212> DNA
```

```
<400> 419
ccacgcgtcc ggcagaagca gcagcagcag aagacacagc gccggtccag gaggcggctc
                                                                       60
                                                                      120
gagctgttcg taaagtcgcc cgacagcttt ttctccgtag tatgcgagtt gacaaaacag
                                                                      180
ccagagaaca gggctcccca ttacaatctt ttcgagatct tttcccttgc taaccggatc
                                                                     24Ó
tgatttgtgc gaaaacatgc cttgcacttg tacctggagg actggagac agtggattcg
                                                                      300
acctttagta gcggtcatct acctggtgtc aatagtggtt gcggttcccc tatgcgtgtg
ggaattacag aaactggagg ttggaataca caccaaggct tggtttattg ctggaatctt
                                                                      360
tttgctgtga ctattcctat atcactgtgg gtgatattgc aacacttagt gcattataca
                                                                      420
caacctgaac tacaaaaacc aataataagg attctttggg atggtaccta tttacagttt
                                                                      480
tagatagttg gatagctttg aaatatcccg gaattgcaat atatgtggat acctgcagag
                                                                      540
                                                                      600
aatgctatga agcttatgta atttacaact ttatgggatt ccttaccaat tatctaacta
                                                                     660
accggtatcc aaatctggta ttaatccttg aagccaaga tcaacagaaa catttccctc
                                                                      720
ctttatgttg ctgtccacca tgggctatgg gagaagtatt gctgtttagg tgcaaactaa
gtgtattaca gtacacagtt gtcagacctt tcaccaccat cgttgcttta atctgtgagc
                                                                      780
                                                                      840
tgcttggtat atatgacgaa gggaacttta gcttttcaaa tgcttggact tatttggtta
                                                                      900
taataaacaa catgtcacag ttgtttgcca tgtattgtct cctgctcttt tataaagtac
taaaagaaga actgagccca atccaacctg ttggcaaatt tctttgtgta aagctggtgg
                                                                      960
tttttgtttc tttttgattt ggcgtttacc ttttcctaac atataggcaa gcagtagtta
                                                                     1020
ttgctttgtt ggtaaaagtt ggcgttatttctgaaaagca tacgtgggaa tggcaaactg
                                                                    1080
tagaagctgt ggccaccgga ctccaggatt ttattatctg tattgagatg ttcctcgctg
                                                                     1140
ccattgctca tcattacaca ttctcatata aaccatatgt ccaagaagca gaagagggct
                                                                     1200
catgctttga ttcctttctt gccatgtggg atgtctcaga tattagagat gatattctg
                                                                   1260
aacaagtaag gcatgttgga cggacagtca ggggacatcc caggaaaaaa ttgtttcccg
                                                                     1320
                                                                     1380
aggatcaaga tcaaaatgaa catacaagtt tattatcatc atcatcacaa gatgcaattt
                                                                     1440
ccattgcttc ttctatgcca ccttcaccca tgggtcacta ccaagggttt ggacacactg
tgactcccca gactacacct accacagcta agatatctga tgaaatcctt agtgatacta
                                                                     1500
taggagagaa aaaagaacct tcagataaat ccgtggattc ctgaacagta tggaaaagca
                                                                     1560
aactgtgcaa ctactacatt atatcattac ctggtatccc atggattttg tgcttgggac
                                                                     1620
agaccataaa tgatggaaaa tgtcaacaca aaaatagctg aaagccaggt acaacactg
                                                                    1680
catttatata tgtaagtttt gtatatcaaa aataattggt ctaaatttcc tagacttaga
                                                                     1740
cttgatttct taacattagg gtatcgcata ctcaaatggt agacaatgac cccaactaaa
                                                                     1800
tcttcctgat gttacactgc tttatcaaga ggatggactt ttttttttt gagacagaca
                                                                     1860
                                                                     1920
gagtettget etgteaccea ggetggagtg cagtggegea atetegggte aetgeaaget
ctgcctccca agttcatgcc attctcctgc ctcagccctc ccaagtagct gggactacag
                                                                     1980
                                                                     2040
gcacctgcca ccatgcccag ctaattttt ttttttcagt agagacaggg tctcaccatg
                                                                    2100
ttagccagga tggtcttgat ctgacctcgt gatccgccga cctcggcctcccaaagtgct
ggaattacag gcgtgagcca ctgcgcctgg ccaagaatgg acattttta aaaaaacatc
                                                                     2160
agtacttcct accactgctg catgagtata atgctccgga attatcagaa agcataatgc
                                                                     2220
agaaatacga attagtggaa cttaatcatg tgccatataa gcttacctaa caaacagtta
                                                                     2280
                                                                     2340
tatccctatt cctcaactga atgtctttca ataaataaga atttatcatt taaaaaaaaa
                                                                     2351
aaaaaaaaa a
<210> 420
<211> 1001
<212> DNA
<213> Homo sapiens
<400> 420
                                                                       60
cgcgctggaa ccctgtggcg gcggccatgg ccatatggcg ctgcccgcctggctgcagcc
                                                                       120
aggtatagga agaatgcgta tcttttcatc tattacttaa tccagttctg tggccactct
                                                                       180
tggatattta caaatatgac agtcagattc ttttcatttg gaaaaggtaa aactccgaaa
cagttttttt atttttaact tttaatcctt gttttcacct catcctgctt atattaaatt
                                                                       240
tctacacacc tcaccttct accacgggat acagattcaa tggttgacac tttttatgct
                                                                      300
attggacttg tgatgcgact ttgccaatcc gtatctctcc tggaactgct gcacatatat
                                                                       360
                                                                       420
gttggcattg agtcaaacca tcttctccca aggtttttgc agctcacaga aagaataatc
```

```
atcctttttg tggtgatcac cagtcaagag gaagtccaag agaatatgt ggtgtgtgtt
                                                              480
                                                               540
ttattcgtct tttggaatct attggatatg gttaggtaca cttatagcat gttatcagtc
                                                               600
ataggaatat cctatgctgt cttgacatgg ctcagtcaaa cactatggat gccaatttat
cctttgtgtg ttcttgctga agcatttgcc atctatcaat cgctgcctta ttttgaatca
                                                               660
tttggcactt attccaccaa gctgcccttt gacttatcca tctatttccc atatgtgctg
                                                               720
aaaatatatc tcatgatgct ctttataggt atgtatttta cctacagtca tctatactca
                                                               780
                                                               840
kaaaqaaqaq acatcctcgg aatctttccc attaaaaaaa agaagatgtg aagtacagca
                                                               900
ttccaqtqtq acacqagaaa agacaggctg tggattca& gcagtaaata aaacacagga
                                                               960
1001
aaaaaaaaa aaaaaaaaa aaaaaaaaaa a
<210> 421
<211> 669
<212> DNA
<213> Homo sapiens
<400> 421
ccacgcgtcc ggacactttt tatgctattg gacttgtgat gcgactttgc caatccgtat
                                                                60
ctctcctqga actgctgcac atatatgttg gcattgagtc aaaccatctt ctcccaaggt
                                                               120
ttttgcagct cacagaaaga ataatcatcc tttttgtggt gatcaccagt caagaggaag
                                                               180
                                                               240
tccaagagaa atatgtggtg tgtgttttat tcgcctttt gaatctattg gatatggtta
                                                               300
qqtacactta taqcatqtta tcaqtcataq qaatatccta tgctgtcttg acatgggctc
agtcaaacac tatggatgcc aatttatcct ttgtgtgttc ttgctgaagc atttgccatc
                                                               360
tatcaatcgc tggcttattt tgaatcattt ggcacttatt ccaccaagct gccctttgac
                                                               420
                                                               480
ttatccatct atttcccata tgtgctgaaa atatatctca tgatgctctt tataggtatg
tattttacct acagtcatct atactcagaa agaagagaca tcctcggaat ctttcccatt
                                                               540
                                                               600
aaaaaaaaga agatgtgaag tacagcattc cagtgtgaca cgagaaaaga caggctgtgg
                                                               660
669
aaaaaaaa
<210> 422
<211> 417
<212> DNA
<213> Homo sapiens
<400> 422
                                                                60
ccacgcgtcc gctcctctag aggctccaca tgaagtccca gtgctacagt cctagttatt
ttgccttctt ctgcctggtt ttctttcaga tcacctcagc cagttctcag acacttaggg
                                                               120
gacatgttct ctgcaggacc actctgaggg actcttctgc atattgctga cctgagagga
                                                               180
tggcctcaqa gctgacttgg gcaatcctcc ccaacaggaa ggggagacat tgcctgccac
                                                               240
tgaggaaaca ggtcatgaag gtggagataa gctgcaaggg gcgaagcaac tttatgtcag
                                                               300
                                                               360
tggaaaacgt gtctctttaa agctgctatg tgaacagctt ttacagtcat taaatttacc
                                                               417
<210> 423
<211> 1949
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1130)..(1130)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (1948)..(1948)
```

```
<400> 423
                                                                     60
qctacgccgt gggcacttcc tcaacgacct gtgcgcgtcc atgtggttca cctacctgct
                                                                    120
gctctacctg cacteggtge gegetacag etceegegge gegggetget getgetgetg
                                                                    180
ggccaggtgg cgacgggctg tgcacaccgc tcgtgggcta cgaggccgac cgcgccgcca
                                                                    240
gctgctgcgc ccgctacggc ccgcgcaagg cctggcacct ggtcggcacc gtctgcgtcc
                                                                   300
tgctgtcctt ccccttcatc ttcagcccct gcctgggctg tggggcggcc acgcgagtg
ggctgccctc ctctactacg gcccgttcat cgtgatcttc cagtttggct gggcctccac
                                                                    360
acagatetee caceteagee teateeegga getegteace aacgaecatg agaaggtgga
                                                                    420
                                                                    480
gctcacggca ctcaggtatg cgttcaccgt ggtggccaac atcaccgtct acggcgccgc
ctggctcctg ctgcacctgc agggctcgtc gcgggtggag cccacccaag acatcagcat
                                                                    540
cagcgaccag ctggggggcc aggacgtgcc cgtgttccgg aacctgtccc tgctggtggt
                                                                    600
gggtgtcggc gccgtgttct cactgctatt ccacctgggc acccgggaga ggcgccggcc
                                                                    660
gcatgcggag gagccaggcg agcacacccc cctgttggcc cctgccacg cccagccct
                                                                   720
                                                                    780
gctgctctgg aagcactggc tccgggagcc ggctttctac caggtgggca tactgtacat
                                                                    840
gaccaccagg ctcatcgtga acctgtccca gacctacatg gccatgtacc tcacctactc
                                                                    900
gctccacctg cccaagaagt tcatcgcgac cattcccctg gtgatgtacc tcagcggctt
cttgtcctcc ttcctcatga agcccatcaa caagtgcatt gggaggaaca tgacctactt
                                                                    960
ctcaggecte ctggtgatee tggeetttge egeetgggtg gegetggegg agggaetggg
                                                                   1020
tgtggccgtg taygcagcgg ctgtgctgct gggtgctggc tgtgccacca tcctcgtcac
                                                                   1080
                                                                  1140
ctcgctggcc atgacggccg acctcatcgg tccccacacg aaagcggan ckttcgtgta
                                                                   1200
cggctccatg agettcttgg ataaggtggc caatgggctg gcagtcatgg ccatccagag
                                                                   1260
cctgcaccct tgcccctcag agctctgctg cagggcctgc gtgagctttt accactgggc
gatggtggct gtgacgggcg gcgttggcgt ggccgctgcc ctgtgtctct gtagcctcct
                                                                   1320
gctgtggccg acccgcctgc gacgctggga ccgtgatgcc cggccctgac tcctgacage
                                                                   1380
                                                                   1440
ctcctgcacc tgtgcaaggg aactgtgggg acgcacgagg atgcccccca gggccttggg
                                                                   1500
gaaaagcccc cactgcccct cactcttctc tggaccccca ccctccatcc tcacccagct
                                                                  1560
cccgggggtg gggtcgggtg agggcagcag ggatgccgc cagggacttg caaggacccc
                                                                   1620
ctgggttttg agggtgtccc attctcaact ctaatccatc ccagccctct ggaggatttg
                                                                   1680
gggtgcccct ctcggcaggg aacaggaagt aggaatccca gaagggtctg ggggaaccct
                                                                   1740
aaccctgage teagtecagt teaccectea cetecageet gggggtetee agacactgee
                                                                   1800
agggccccct caggacggct ggagcctgga ggagacagcc acggggtggt gggctgggcc
                                                                   1860
tggaccccac cgtggtgggc agcagggctg cccggcaggc ttggtggact ctgctggcag
                                                                   1920
1949
aaaaaaaaa agggggggg gctagttnt
<210> 424
<211> 1487
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (78)..(78)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (948)..(948)
<223> n equals a,t,g, or c
<400> 424
ccgctgctga taactatggc atcccccggg cctgcaggaa ttcggcacgg agctacggcg
                                                                     60
ccgcctggct cctgctgnca cctgcaggct cgtcgcgggt ggagcccacc caagacatca
                                                                    120
gcatcagcga ccagctgggg ggccaggacg tgcccgtgtt ccggaacctg tccctgctgg
                                                                    180
                                                                    240
```

tggtgggtgt cggcgccgtg ttctcactgc tattccacct gggcacccgg gagaggcgcc

```
ggccgcatgc ggasgagcca ggcgagcaca ccccctgtt ggcccctgcc acggcccagc
                                                                    300
                                                                    360
ccctgctgct ctggaagcac tggctccggg agcsggcttt ctaccaggtg ggcatactgt
acatgaccac caggeteate gtgaacetgt eccagaceta catggecatg taceteact
                                                                   420
actcgctcca cctgcccaag aagttcatcg cgaccattcc cctggtgatg tacctcagcg
                                                                     480
                                                                     540
gcttcttgtc ctccttcctc atgaagccca tcaacaagtg cattgggagg aacatgacct
                                                                     600
acttctcagg cctcctggtg atcctggcct ttgccgcctg ggtggcgctg gcggagggac
                                                                    660
tgggtgtggc cgtgtacgca gcggctgtgc tgctgggtgc tggctgtgcc accatcctcg
                                                                    720
tcacctcgct ggccatgacg gccgacctca tcggtcccca cacgaacagc ggagckttcg
tgtacggctc catgagcttc ttggataagg tggccaatgg gctggcagtc atggccatcc
                                                                     780
                                                                   840
agagectgea ecettgeece teagagetet getgeagge etgegtgage tttaceaet
                                                                     900
gggcgatggt ggctgtgacg ggcggcgtgg gcgtggccgc tgccctgtgt ctctgtagcc
tcctgctgtg gccgacccgc ctgcgacgct gatgagacct gcacgcantg gctcacagca
                                                                     960
                                                                    1020
gcacgatttg tgacagcccg aggcggagaa caccgaacac ccagtgaagg tgaggggatc
                                                                   1080
agcacggcgc ggccaccac gcacccacgc gctggaatga gactcagcca caaggaggtg
cgaagctctg acccaggcca cagtgcggat gcaccttgag gatgtcacgc tcagtgagag
                                                                    1140
acaccagaca cagaagggta cgctgtgatc ccacttctat gaaatgtcca ggacagacca
                                                                    1200
atccacagaa tcagggagag gattcgtggg tgccgggact ggggagggg acctgggggt
                                                                   1260
                                                                    1320
gactaggtga cataatgggg acagggctgc cttctgggtg atgagaatgt tctggaatca
                                                                    1380
gatgggatgg ctgcacggcg tggtgaaggt actgaacgcc acctcactgt aagacggtag
                                                                    1440
1487
aaaaaaaagg aattcgatat caagcttatc gataccgtcg acctcga
<210> 425
<211> 1525
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (78)..(78)
<223> n equals a,t,g, or c
<400> 425
                                                                     60
ccgctgctga taactatggc atcccccggg cctgcaggaa ttcggacgg agctacggcg
                                                                     120
ccgcctggct cctgctgnca cctgcaggct cgtcgcgggt ggagcccacc caagacatca
gcatcagcga ccagctgggg ggccaggacg tgcccgtgtt ccggaacctg tccctgctgg
                                                                     180
                                                                     240
tggtgggtgt cggcgccgtg ttctcactgc tattccacct gggcacccgg gagaggcgcc
                                                                     300
ggccgcatgc ggasgagcca ggcgagcaca ccccctgtt ggcccctgcc acggcccagc
ccctgctgct ctggaagcac tggctccggg agcsggcttt ctaccaggtg ggcatactgt
                                                                     360
acatgaccac caggeteate gtgaacetgt eccagaceta catggecatg taceteacet
                                                                     420
actogotoca cotgocoaag aagttoatog cgaccattocootggtgatg tacotoagog
                                                                    480
gcttcttgtc ctccttcctc atgaagccca tcaacaagtg cattgggagg aacatgacct
                                                                     540
acttctcagg cctcctggtg atcctggcct ttgccgcctg ggtggcgctg gcggagggac
                                                                     600
tgggtgtggc cgtgtacgca gcggctgtgc tgctgggtgc tggctgtgcc accatcctcg
                                                                     660
                                                                     720
tcacctcgct ggccatgacg gccgacctca tcggtcccca cacgaacagc ggactktcgt
                                                                     780
gtacggctcc atgagcttct tggataaggt ggccaatggg ctggcagtca tggccatcca
                                                                     840
gagcctgcac ccttgcccct cagagctctg ctgcagggcc tgcgtgagct tttaccactg
ggcgatggtg gctgtgacgg gcggcgtggg cgtgcgct gccctgtgtc tctgtagcct
                                                                    900
cctgctgtgg ccgacccgcc tgcgacgctg ggaccgtgat gcccggccct gactcctgac
                                                                     960
agcctcctgc acctgtgcaa gggaactgtg gggacgcacg aggatgcccc ccarggcctt
                                                                    1020
ggggaaaagc ccccactgcc cctcactctt ctctggaccc ccaccctcca tcctcaccca
                                                                    1080
gctcccgggg gtggggtcgg gtgagggcag cagggatgcc cgccagggac ttgcaaggac
                                                                    1140
                                                                    1200
cccctgggtt ttgagggtgt cccattctca actctaatcc atcccagccc tctggaggat
ttggggtgcc cctctcggca gggaacagga agtaggaatc ccagaagggt ctgggggaac
                                                                    1260
                                                                    1320
cctaaccctg agctcagtcc agttcacccctcacctccag cctgggggtc tccagacact
gccagggccc cctcaggacg gctggagcct ggaggagaca gccacggggt ggtgggctgg
                                                                    1380
                                                                    1440
gcctggaccc caccgtggtg ggcagcaggg ctgcccggca ggcttggtgg actctgctgg
```

```
1525
aaaaaaaaa aaacccaccg tccgc
<210> 426
<211> 1050
<212> DNA
<213> Homo sapiens
<400> 426
ccacgcgtcc ggccagccag tccgcccgtc cggagcccgg ctcgctgggg cagcatggcg
                                                                  60
gggtcgccgc tgctctgggg gccgcgggc gggggcgtcg gccttttggt gctgctgctg
                                                                120
ctcggcctgt ttcggccgcc ccccgcgctc tgcgcgcggc cggtaaagga gccccgcggc
                                                                 180
                                                                 240
ctaaqcqcaq cgtctccgcc cttggctaga ctggcgctcc tcgccgcttc cggcggtcag
tgccccgagg tgaggcggcg ggggcggtgc agacctggcg cgggcgctgg cgcatctgct
                                                                300
ggagccgaac gtcaggagcg ggcgcgggcc gaggcgcaga ggctgaggat cagcaggcgc
                                                                 360
gcgtcctggc gcagctgctg cgcgtctggg gcgccccccg caactctgat ccggctctgg
                                                                 420
                                                                 480
gcctggacga cgaccccgac gcgcctgcag cgcagctcgc tcgcgctctg ctccgcgccc
                                                                 540
gccttgaccc tgccgcccta gcæcccagc ttgtccccgc gcccgtcccc gccgcggcgc
                                                                 600
tecgaeeeeg geeeeggte tacgaegaeg geeegggg eeeggatget gaggaggeag
                                                                 660
gcgacgagac acccgacgtg gaccccgagc tgttgaggta cttgctggga cggattcttg
cgggaagcgc ggactccgag ggggtggcag ccccgcgccg cctccgccgt gccgcgacc
                                                                720
                                                                 780
acgatgtggg ctctgagctg ccccctgagg gcgtgctggg ggcgctgctg cgtgtgaaac
gcctagagac cccggcgccc caggtgcctg cacgccgcct cttgccaccc tgagcactgc
                                                                 840
ccggatcccg tgcaccctgg gacccagaag tgcccccgcc atcccgccac caggactgct
                                                                 900
ccccgccagc acgtccagag caacttaccc cggccagcca gccctctcac ccgaggatcc
                                                                 960
                                                                1020
1050
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa
<210> 427
<211> 718
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (678)..(678)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (687)..(687)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (699)..(699)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (708)..(708)
<223> n equals a,t,g, or c
```

```
<400> 427
natececetg getgeaggaa tteggeaega ggaactetga geacegtgge ttecageate
                                                                   60
                                                                  120
aatgeettgg caacagtgae etttgaggat tttgtcaag getgttttee teatetetee
                                                                  180
gacaagctga gcacctggat cagtaaaggc ttatgtctct tatttggcgt gatgtgtacc
tctatggctg tggctgcatc tgtcatggga ggtgttgtgc aggcttccct cagcattcac
                                                                  240
ggcatgtgtg gaggaccaat gctgggctta ttctccctgg gaatcgtgtt cccttttgtg
                                                                  300
                                                                  360
aattggaagg gtgcactagg aggtcttctt actggaatca ccttgtcatt ttgggtggcc
attggggcct tcatttaccc tgcaccagcc tctaagacat ggcctttgcc tctatcaaca
                                                                  420
gaccaatgta tcaaatcaaa tgtgacagca acagggcctc cagtactatc cagcagacct
                                                                  480
ggaatagctg atacctggta ctcgatctcc tactttact acagtgcagt gggctgctta
                                                                  540
ggatgcattg ttgctggagt aatcatcagc ctcataacag gtcgccaaag aggtgaggat
                                                                  600
660
acaaaaccac tatgctgngt gtggagntca gcatgacant ggggacanag caggaaaa
                                                                  178
<210> 428
<211> 614
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (52)..(52)
<223> n equals a,t,g, or c
<400> 428
aatcccaaag gttgtcttta aatatttctc aaaagagaaa gccttgaaag angcatacaa
                                                                   60
tagagtaaaa atwaattacc agtatttatt attagaaaaag atagaaagac agacaaatca
                                                                  120
                                                                  180
gtggaggaat taaaacagag aaactggagt ttataaaaca gagcccaatc cttgccttct
                                                                  240
ctccctccac tcaaatagaa aaggagaatg gagaaagaga aagaaggtat taggctacag
                                                                 300
tttataagag agatgagaaa aaaatacatt tgggaataga gggaaagggt caaaaggggt
                                                                  360
cacatttgga gaaatatctg aaaatgagaa ggagcagaat ttttggaaac attttttaaa
gtctggcaac gctaattaag ctgttgatct aaggatttgc aaattgagag gtgcaattat
                                                                  420
tttccaaatg atttgtgaca ctcttattaa ttagaatata tattctgtga atattgaaat
                                                                  480
ctgagccaaa actagttagc tttattæta tcttagggaa agaagagaga aagaaagagg
                                                                  540
                                                                  600
614
aaaaaaactc gtag
<210> 429
<211> 1194
<212> DNA
<213> Homo sapiens
<400> 429
                                                                   60
gagcccagca acgtgcaagg ggaaagggga caggattctg gatggccatt tgcttcactg
                                                                  120
ggatgcaaaa cctcttttga gtactagaat cagtatttct tcttccatct ctgctgtacc
                                                                  180
tgagaagaaa tggccaaacg caccttctct aacttggaga cattcctgat tttcctcctt
                                                                  240
gtaatgatga gtgccatcac agtggcctt ctcagcctct tgtttatcac cagtgggacc
attgaaaacc acaaagattt aggaggccat tttttttcaa ccacccaaag ccctccagcc
                                                                  300
                                                                  360
accoaggget ccacageege ccaaegetee acagecaece ageattecae agecaeceag
agctccaaca gccaactcaa acttctccag tgcctttaac cccagagtct cctctattc
                                                                 420
                                                                  480
agaacttcag tggctaccat attggtgttg gacgagctga ctgcacagga caagtagcag
                                                                  540
atatcaattt gatgggctat ggcaaatccg gccagaatgc acagggcatc ctcaccaggc
                                                                  600
tatacagtcg tgccttcatc atggcagaac ctgatgggtc caatcgaaca gtgtttgtca
                                                                  660
gcatcgacat aggcatggta tcccaaaggc tcaggctgga ggtcctgaac agactgcaga
gtaaatatgg ctccctgtac agaagagata atgtcatcct gagtggcact cacactcatt
                                                                  720
caggicctgc aggatatitc cagtataccg tgtttgtaat tgccagtgaa ggatttagca
                                                                  780
```

```
atcaaacttt tcagcacatg gtcactggta tcttgaagag cattgacata gacacacaa
                                                                   840
atatgaaacc aggcaaaatc ttcatcaata aaggaaatgt ggatggtgtg cagatcaaca
                                                                    900
                                                                    960
gaagtccgta ttcttacctt caaaatccgc agtcagagag agcaaggtat tcttcaaata
cagacaagga aatgatagtt ttgaaaatgg tagatttgaa tggagatgac ttgggcctta
                                                                    1020
tcagtttttc attcagcaag tctgcactag ggacctacta tgagccacgc aatacttcct
                                                                   1080
tggaatgatg tattccctgg ccttgaaata aggaatctag tacccatgtt tgtgctactg
                                                                   1140
1194
<210> 430
<211> 2334
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (2278)..(2278)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (2290)..(2290)
<223> n equals a,t,g, or c
<400> 430
gggagtgtgg ctgcagaacc caggtggcag ggctttcctc aggcccctta ctcctgacct
                                                                     60
ggacgaggcc ggggcttcct caaggaggct ctctgactgc cacccctgcc tgcctgcccg
                                                                    120
gecetgeaca acatgeagee eteeggeete gagggteeeg geaegtttgg teggtggeet
                                                                    180
etgetgagte tgetgeteet getgetgetg etceageetg taacetgtge etacaceaeg
                                                                    240
ccaggccccc ccagagccct caccacgctg ggcgcccca gagcccacac catgccgggc
                                                                    300
acctacgete cetegaceae acteagtagt eccageacee agggeetgea agageaggea
                                                                    360
                                                                    420
egggeeetga tgegggaett eeegetegtg gaeggeeaca aegaeetgee eetggteeta
aggcaggttt accagaaagg gctacaggat gttaacctgc gcaatttcag ctacggccag
                                                                    480
accagectgg acaggettag agatggeete gtgggegeee agttetggte ageetatgtg
                                                                    540
ccatgccaga cccaggaccg ggatgccctg cgcctcaccc tggagcagat tgacctcata
                                                                    600
cgccgcatgt gtgcctccta ttctgagctg gagcttgtga cctcggctaa agctctgaac
                                                                    660
gacactcaga aattggcctg cctcatcggtgtagagggtg gccactcgct ggacaatagc
                                                                    720
                                                                    780
ctetecatet taegtaeett etaeatgetg ggagtgeget aeetgaeget caeceacace
tgcaacacac cctgggcaga gagctccgct aagggcgtcc actccttcta caacaacatc
                                                                    840
agcgggctga ctgactttgg tgagaaggtg gtggcagaaa tgaaccgcct gggcatgatg
                                                                   900
gtagacttat cccatgtctc agatgctgtg gcacggcggg ccctggaagt gtcacaggca
                                                                    960
                                                                   1020
cctgtgatct tctcccactc ggctgcccgg ggtgtgtgca acagtgctcg gaatgttcct
                                                                   1080
gatgacatcc tgcagcttct gaagaagaac ggtggcgtcg tgatggtgtc tttgtccatg
ggagtaatac agtgcaaccc atcagcaat gtgtccactg tggcagatca cttcgaccac
                                                                   1140
                                                                   1200
atcaaggctg tcattggatc caagttcatc gggattggtg gagattatga tggggccggc
aaattccctc aggggctgga agacgtgtcc acatacccag tcctgataga ggagttgctg
                                                                   1260
agtcgtggct ggagtgagga agagcttcag ggtgtccttc gtggaaacct gctgcggtc
                                                                  1320
ttcagacaag tggaaaaggt acaggaagaa aacaaatggc aaagcccctt ggaggacaag
                                                                   1380
                                                                   1440
ttcccggatg agcagctgag cagttcctgc cactccgacc tctcacgtct gcgtcagaga
cagagtctga cttcaggcca ggaactcact gagattccca tacactggac agccaagtta
                                                                   1500
ccagccaagt ggtcagtctc agagtcctcc ccccacatgg ccccagtcct tgcagttgtg
                                                                   1560
gccaccttcc cagtccttat tctgtggctc tgatgaccca gttagtcctg ccagatgtca
                                                                   1620
ctgtagcaag ccacagacac cccacaaagt tcccctgttt gcaggcacaa atatttcctg
                                                                   1680
                                                                  1740
aaataaatgt tttggacata gaaaaaaaaa aaaaaaaaag ggcggccgctctagaggatc
                                                                   1800
cctcgagggg cccaagctta cgcgtgcatg cgacgtcata gctctctcc tatagtgagt
                                                                   1860
cgtattataa gctaggcact ggccgtcgtt ttacaacgtc gtgactggga gatctgctag
cttgggatct ttgtgaagga accttacttc tgtggtgtga cataattgga caaactacct
                                                                   1920
                                                                   1980
acagagattt aaagctctaa ggtaaatata aaatttttaa gtgtataatg tgttaaacta
```

```
2040
gctgcatatg cttgctgctt gagagttttg cttactgagt atgatttatg aaaatattat
                                                                   2100
acacaggage tagtgattet aattgtttgt gtattttaga tteacagtee caaggeteat
                                                                  2160
ttcaggcccc tcagtcctca cagtctgttc atgatcataa tcagcatac cacatttgta
gaggttttac ttgctttaaa aaacctycca cacctcccc tgaacctgaa acataaaatg
                                                                   2220
aatgcaattg gtggtggtaa cttggttaat ggagcttata atggtaccaa taaagcantg
                                                                   2280
                                                                   2334
catcacaaan ttcccaaata aagcattttt tcctggaatt taaatggggg ttgg
<210> 431
<211> 759
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (16)..(16)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (22)..(22)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (36)..(36)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (51)..(52)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (57)..(58)
<223> n equals a,t,g, or c
<400> 431
ggattaacaa attttncaca cnaggaaaac aggttnttga cccaattagg nnttttnnca
                                                                     60
aaaaagctta tttttaggtt gacacttatt agaagttacg ccttgcaggt taccggttcc
                                                                    120
ggaattcccg ggtcgaaccc caaggggttc gcggacccca gacatgagga ggctcctcct
                                                                    180
                                                                    240
ggtcaccage ctggtggttg tgctgctgtg ggaggcaggt gcagtcccag cacccaaggt
ccctatcaag atgcaagtca aacactggcc ctca@gcag gacccagaga aggcctgggg
                                                                   300
                                                                    360
cgcccgtgtg gtggagcctc cggagaagga cgaccagctg gtggtgctgt tccctgtcca
420
                                                                    480
tecaggeace aaggeetgga tggagaeega ggaeaeeetg ggeegtgtee tgagteeega
                                                                    540
gcccgaccat gacagcctgt accaccctcc gcctgaggag gaccagggcg aggagaggcc
                                                                    600
ccggttgtgg gtgatgccaa atcaccaggt gctcctggga ccggaggaag accaagacca
catctaccac ccccagtagg gctccagggg ccatcactgc ccccgccctg tcccaaggcc
                                                                    660
caggetqttq ggactqqqac cctccctaccctqccccagc tagacaaata aaccccagca
                                                                   720
ggccgggaaa aaaaaaaaaa aaaaaaaaag ggcggccgc
                                                                    759
<210> 432
<211> 647
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc_feature
<222> (525)..(525)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (578)..(578)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (581)..(581)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (620)..(620)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (629)..(630)
<223> n equals a,t,g, or c
<400> 432
                                                                     60
gtgaaacgcc tgggctcaag ctgattcacc tgcctccacc tcccacagtg ctgggattac
aaacatgatc ccccacgccc agccaacaca aaacttctga tgctctgttt tctcatctgt
                                                                    120
                                                                   180
gaactggagc taaggctaag tggtctgtct gtttaataag agtttgatc agatggcctg
                                                                    240
gcatgaagag tcactggcct gagagaatgt caggggcatt tgtaaatgtg taaagggctg
                                                                    300
aaaaatcctg agggattatt attattgcta ttgttgttat tattcacaga cacatycaac
                                                                    360
agccattgtc tgcctcctta tctgtcatgc tttctgcacg agcgtcagcc tgagcttcaa
totgtgtgta tatotgcago ttacgtoott goaccootco agaaccoagt ttoatcottg
                                                                    420
                                                                    480
taggtttttc craagcagga tttgcacaag tggcgtgttt tcttaagtat ttattttgca
ggccatttac tcggcatggc tatttttaca gtgggtaagg agcanggcta aaaataactt
                                                                    540
agctcataac cagacaggtt ctgcatttga cattacgngg attcatttg catcccattt
                                                                   600
ggtcgccttt ctggttaacn ggtagaatnn aagaaagctc acccgaa
                                                                    647
<210> 433
<211> 1321
<212> DNA
<213> Homo sapiens
<400> 433
                                                                     60
gcggggggga ggaggaggg gaggagggag cggagatctc ggggctcgga gccggccgcc
120
                                                                    180
atatggaggc aaatgggagc caaggcacct cgggcagcgc caacgactcc cagcacgacc
                                                                    240
ccggtaaaat gtttatcggt ggactgagct ggcagacctc accagatagc cttagagact
attttagcaa atttggagaa attagagaat gtatggtcatgagagatccc actacgaaac
                                                                   300
                                                                    360
gctccagagg cttcggtttc gtcacgttcg cagacccagc aagtgtagat aaagtattag
                                                                    420
gtcagcccca ccatgagtta gattccaaga cgattgaccc caaagttgca tttcctcgtc
gagcgcaacc caagatggtc acaagaacaa agaaaatatt tgtaggcggg ttatctgcga
                                                                    480
                                                                    540
acacagtagt ggaagatgta aagcaatatt tcgagyagtt tkgcaaggtg gaagatgcaa
                                                                    600
tgctgatgtt tgataaaact accaacaggc acagagggtt tggctttgtc acttttgaga
                                                                    660
atgaagatgt tgtggagaaa gtctgtgaga ttcatttcca tgaaatcaat aataaaatgg
tagaatgtaa gaaagctcag ccgaaagaag tcat&tccc acctgggaca agaggccggg
                                                                   720
                                                                    780
cccggggact gccttacacc atggacgcgt tcatgcttgg catggggatg ctgggtgagt
```

```
ctggacagga ccgcaggtca ccatggactg ggagggctat ggaggcctct actcccaact
                                                                      840
                                                                      900
gggtcaccta ccagtggggc aaactgcttc acctttctaa gcctcagttt ccttgtctgt
                                                                      960
agatgaggat gataattccc cgttccaaga cagttgtgat gattaagtgt gggtgtgtgt
                                                                     1020
qtqtqcatqc atqtqtqtgt gtgtgtgtgt gtgtttgtat ttataatatt gccccatgcc
                                                                     1080
tggcttatag gatatgttag actattttct ctcttttcca tctccttcct caaaagaagg
                                                                    1140
aaaagtcccc ctctatctgc ctcagccctctcatctgagt gggagttytt aagatgtaag
gactcctggc tgacttgact tgtgtgggct aaggctacgt tttctaaaac ttgggagagg
                                                                     1200
agggaagtgg taagggtggg cgataatcct gtctatttaa atgattaaca tttttctctt
                                                                     1260
gggatatcaa aatttgcatt taaatggatg ttttaaatag cctgttttac tctttatttg
                                                                   1320
                                                                     1321
<210> 434
<211> 1636
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1624)..(1624)
<223> n equals a,t,g, or c
<400> 434
tcgacccacg cgtccggctg agtdgagct gagcctgccc caccaccaag atgatcctga
                                                                      60
gcttgctgtt cagccttggg ggccccctgg gctgggggct gctgggggca tgggcccagg
                                                                      120
                                                                      180
cttccagtac tagcctctct gatctgcaga gctccaggac acctggggtc tggaaggcag
                                                                     240
aggetgagga caccageaag gaccccgttg gacgtaactg gtgcccctac ccaatcca
                                                                      300
agctggtcac cttactagct ctttgcaaaa cagagaaatt cctcatccac tcgcagcagc
cgtgtccgca gggagctcca gactgccaga aagtcaaagt catgtaccgc atggcccaca
                                                                      360
                                                                      420
agccagtgta ccaggtcaag cagaaggtgc tgacctcttt ggcctggagg tgctgccctg
gctacacggg ccccaactgc gagcaccacg attccatggc aatccctgag cctgcagatc
                                                                      480
ctggtgacag ccaccaggaa cctcaggatg gaccagtcag cttcaaacct ggccaccttg
                                                                      540
ctgcagtgat caatgaggtt gaggtgcaac aggaacagca ggaacatctg ctgggagatc
                                                                      600
                                                                     660
tccagaatga tgtgcaccgg gtggcagaca gcctgccagg cctgtggaaagccctgcctg
                                                                      720
qtaacctcac agctgcagtg atggaagcaa atcaaacagg gcacgaattc cctgatagat
                                                                      780
ccttggagca ggtgctgcta ccccacgtgg acaccttcct acaagtgcat ttcagcccca
                                                                      840
tctggaggag ctttaaccaa agcctgcaca gccttaccca ggccataaga aacctgtctc
                                                                      900
ttgacgtgga ggcaaccgc caggccatct ccagagtcca ggacagtgcc gtggccaggg
ctgacttcca ggagcttggt gccaaatttg aggccaaggt ccaggagaac actcagagag
                                                                      960
tggqtcagct gcgacaggac gtggaggaac gcctgcacgc ccagcacttt accctgcacc
                                                                     1020
gctcgatctc agagctccaa gccgatgtgg acaccaaatt gaagggctg cacaaggctc
                                                                    1080
                                                                     1140
akgaggcccc agggaccaat ggcagtctgg tgttggcaac gcctggggct ggggcaaggc
                                                                     1200
ctgagccgga cagcctgcag gccaggctgg gccagctgca gaggaacctc tcagagctgc
                                                                     1260
acatgaccac ggcccgcagg gaggaggagt tgcagtacac cctggaggac atgagggcca
                                                                     1320
ccctgacccg gcacgtggat gagatcaagg aactgymctc cgaatcggac gagactttcg
                                                                     1380
atcaqattaq caagktgkwg cggcaggtgg aggagctgca ggtgaaccac acggcgctcc
                                                                     1440
gtgagctgcg cgtgatcctg atggagaagt ctctgatcat ggaggagaac aaggaggagg
                                                                     1500
tggagcggca gctcctggag ctcaacctca cgctgcaga cctgcagggt ggcatgccga
cctcatcaag tacgtgaagg actgcaattg ccagaagctc tatttagacc tggacgtcat
                                                                     1560
ccgggagggc agagggacgc cacgcgtgcc ctggaggaga cccaggtgag cctggacgar
                                                                     1620
                                                                     1636
cggnggcaag ctggac
<210> 435
<211> 645
<212> DNA
<213> Homo sapiens
```

<400> 435

```
60
tcgacccacg cgtccgccaa aagcagacat agcttcagat gcagcttgat ccagggctca
gatgccatga tcagaatcca attcttgcat ctgtttcttt gggttggctt cattttcagg
                                                                    120
                                                                   180
cagcccctt cctcatatcc tcaagatggc agagacagc catggtcttt cccttgcaga
gacagatcac caggaaacaa tacctctatc cctagccatg aaacagtctt gaactttatt
                                                                    240
                                                                    300
ctgacttgat cagccaagtc cctgttggaa ccatcactgc ctagcttagg cctgagacag
                                                                    360
tgctgcacct ctactaccaa aggccgggct ggccttccct aaagtgtatg tgctgcgtgg
                                                                    420
gggagaggta cggatctgaa ccaaaacgag ggctgtccag cgtcagcaaa tatctcccgc
agtoccagtg cotocageag gaggoaaago atcaaccoot cogtotggot cototactga
                                                                    480
                                                                    540
aaattccctc agcagcctca caggccttag gcttgtctta gctacttctt catctacttt
tttgctttct taattatttt tcttttcttt tttttattt tattttattt tattttagat
                                                                   600
                                                                    645
qqaqtttcqc tccgtcqccc aggctqaagt gcagtttcag acatg
<210> 436
<211> 1084
<212> DNA
<213> Homo sapiens
<400> 436
                                                                     60
ggatggcgct acgtctgctg cggagggcgg cgcgcggagc tgcggcggcg gcgctgctga
ggctgaaagc gtctctagca gctgatatcc ccagacttgg atatagttcc tcatcccatc
                                                                    120
acaagtacat cccccggagg gcagtgcttt atgtacctgg aaatgatgaa aagaaaataa
                                                                    180
                                                                    240
agaagattcc atccctgaat gtagattgtg cagtgctcga ctgtgaggat ggagtggctg
                                                                   300
caaacaaaaa gaatgaagct cgactgagaa ttgtaaaaac tcttgaagac attgatctgg
                                                                    360
gccctactga aaaatgtgtg agagtcaact cagtttccag tggtctggcg gaagaagacc
tagagaccct tttgcaatcc cgggtccttc cttccagcct gatgctacca aaggtggaaa
                                                                    420
gtcctgaaga aatccagtgg gcagtgtgtg aagaaaccct gaaggtcggg cctcaagtag
                                                                   480
gtctctttct agatgcagtc cgtttttgga ggaraagact ttcgagccac ataggtgcam
                                                                    540
                                                                    600
caagtartaa agaaaccctg gatawtctct acgcccggca aaagattgtt gtcatagcga
                                                                    660
aagcctttgg tctccaagcc gtaratctgg kgkacattga ctttcgagat ggarctkggc
                                                                    720
tgcttagaca gtcacgagaa ggagccgca tgggcttcac tggtaagcag gtgattcacc
                                                                    780
ctaaccaaat tgccgtggtc caggagcagt tttctccttc ccctgaaaaa attaagtggg
                                                                    840
ctgaagaact gattgctgcc tttaaagaac atcaacaatt aggaaagggg gcctttactt
tccaagggag tatgatcgac atgccattac tgaagcaggc ccagaacact gttacgctg
                                                                   900
                                                                    960
ccacctccat caaggaaaaa tgatctgtta aatgaagctg tcatcaggct aaagggtatt
gaagctgcag agggatcaac ttgtgcttgc cagaggacgc caatgaagtt tgaaacacca
                                                                   1020
acaatcagag attttgtttc tgttcctcat taaatcatga gcttttgtgc cgagaaaaaa
                                                                   1080
                                                                   1084
aaaa
<210> 437
<211> 1168
<212> DNA
<213> Homo sapiens
<400> 437
ggcacgagec cocgeccet cotteetee cetecttee coggeccegg ctetggccc
                                                                     60
ggcccattcg ctgttgggtc ttctgctagg gaggatgtcg ggttcgtcgc tgcccaggc
                                                                   120
                                                                    180
gaacgtgaga gtacaatctg gacaggatca gaagtagaga atgaagttgt aagagaaagg
                                                                    240
                                                                    300
gaaagacaga agaaaggctg cagtagtaca aggagaaaag caggatgcaa gaatgaggaa
                                                                    360
tgaatctttg tttgaggagc atccggaaaa atataagctg tcagaaagag taaatagacc
                                                                    420
agggacctct aaagtaaatt cacacatcaa agttaaaata atgttggaga atcacctcct
                                                                    480
gtgaaaaatt ggcttagctt tcagtatgcc tctttaaaca aaacattatc attttataca
aatttttaaa atgttgttca taatatggag tttaatttta agcaccttag baatgcatt
                                                                   540
tgttagcttg tttgtgaaat ttttatggat ttttttttt aaaattccta attttagttg
                                                                    600
                                                                    660
gtaaggatta acttcgggaa gacaggaaac ccctccagta aaattaattg gttataaatg
gttacatatt ttaggcttat atacataaca aaacttctaa ctgaatttaa aagtgatctt
                                                                    720
                                                                    780
gtgtaaaaac attattctag tgatattgat gtctaaattt aaaagagtga atacacaagt
```

```
840
aaaatatatc tgctttttaa ggatctattc agtttaggaa ggagagtcaa aatttgtatt
taatttcaat ttattatatt gtctgaaact gaaagtaggc ctaacttttg tttgcttttg
                                                                    900
                                                                   960
tgtatgtaca aaggcaaaca tttatcaatc aactcttatt aatttggat tattttgacc
tgattgctca gaacttttgt ctatctgtat agaaatgggg ttttctaaat atttaaagaa
                                                                   1020
tttcctacgt atgtaaattt acttgcacac agtaagttag gggagacatt taatattcct
                                                                   1080
                                                                   1140
cagatacctg ctgttttctt gttgtgtttc ttgtttttca aataaataaa ctgagtgtta
                                                                   1168
tctgttcatt aaaatagaat gtagtcag
<210> 438
<211> 1776
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1748)..(1748)
<223> n equals a,t,g, or c
<400> 438
agccactgtg cccagcctcg gctcaggttt ttmaatacagtcttgacctt ggcattcagt .
                                                                     60
atcctcacag catggttcta attaactttc tagctctatt tcccttttcc tgctccctct
                                                                     120
                                                                     180
ctctacaact agtctttctc tgattgcccc gccctcaacc catctaaact agaccccagg
gaagcacctt ggtccccttc ctctctccca ctcaccatcc aaccaatcac cagagcctgt
                                                                     240
acattctata ttttcaacat cgattcaatt gtctacttct ttctagcctg ccctctctga
                                                                     300
                                                                     360
ctgggactcc ttgagccagc ctgatcaccc caatccatcc ctcacactgt gcccatcttt
ctgaagtagg aatctgatca caccamcctg ctaaaaacac tctggttctc cccacggcat
                                                                     420
                                                                    480
gtggtgccct tgtatagctg gcaaagcctt gcatgcacg gccccagcct gtgcttcaac
tcaattgccc gactctctcc agctctgctg agccacctaa gtcacagatg gtttctcctc
                                                                     540
                                                                     600
tcatctctgc tctcttccat gtgccatttc tgtggcttgg aatgttcttc cctcattctc
tttctggccc tttcccgtca caccttagac gtgcatcttc ctctcgaaaa cctctagtga
                                                                     660
agcctcccag ggccaggcag taccctcctc tggcttcttc tggatacaga ggaagaatct
                                                                     720
gagcatcgat totocatoto agcaggooto tgtgtgcotg otgactooga otagaccaga
                                                                     780
gatccgtaag gacagggatc gagtttttt tcttttaatk cactgcctca aaaatcctct
                                                                     840
gtgcattacc tattcatcct cttctctcccttaacctgaa ccagtgatct tactgtctcc
                                                                    900
960
tcacccaggc tggagtgcag tgatgcgatc tcgactcact gcaacctcca tctcctgggt
                                                                    1020
tcaagcgatt ctcctgcctc agcctcccca gtagctggga ttacaggcat gcgctaccat 1080
ccccaactaa tttttgcctc cataattytg ccttttstag aatgtcatac aggtggaatt
                                                                    1140
actcagtatg ctgccttttt cagattggct tctttcactt agtaatatgs tygttttttg
                                                                    1200
agacagggtc ttgctctgtc gcccaggcta gagtgtggtg gtgcgatctt agctcactga
                                                                    1260
aacctccacc tcccaggttc aagtgaytct sctgcctcag cctcccgagt agctgggact
                                                                    1320
acaggcacgt gccaccatac ccggctaatt tgtggatttt tagtacagac ggsgtttcgt
                                                                    1380
catgttggcc agtgtgytgt tgaattcctg acctcaagtg atccacctgc ctcagcctcc
                                                                    1440
caaagtgttg cgattacagg tgtgagccac tgcgccaagc ctcatttagt aatagcatt
                                                                   1500
                                                                    1560
taaactttct ccatgkcttt aatggcttga tagctcattt atttttatca wggaatattt
cattgtctgg atggaccaca gtttatttct ccattcacct actgaaggac atctcggttg
                                                                    1620
cttctaagtt ttggcaatta tgaataaagc tgctataacc atcaagtgca ggtttttgtg
                                                                    1680
tggacctatt atcaactaat tcgggtaaat ctcaaggagt gcaattgctg gatccacagt
                                                                    1740
                                                                    1776
aagagtgngt ttagttttaa gtgcttggcc attttc
<210> 439
<211> 784
<212> DNA
 <213> Homo sapiens
 <220>
 <221> misc_feature
```

```
<222> (1)..(1)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (6)..(6)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (32)..(32)
<223> n equals a,t,g, or c
<400> 439
                                                                        60
ngagtntaat tgctggatca cacagtaaga gngtggttag ttttaagtgg ctgtgccatt
ttgcattccc accagcaatg aatgagagtt tctgttgctc cacattctca ctaccattcg
                                                                      120
gtgttgtcag tgttttgcat tttggccatt ctagtaggtg tttacatggt atctagtcat
                                                                      180
ttgaatgggc atatgatgtg gaacatcttt ttttttttat tttwttatta ttatacttta
                                                                       240
                                                                     300
agttttaggg tacatgtgca caaygtgcag gttwgttaca tatgtatacatgtgccatgy
                                                                       360
tggtgtgctg cacccaytaa ctcgtcatyt agcattaggt atatctccya atgctattgg
aacatctttt catqtqttta tttqccatct qtatatcttc cctqatqagt tggggatgca
                                                                       420
                                                                      480
ttctttccat ctcagagtcc ccagaaacta acatagcagt tggtacagag ttggtgctca
                                                                      540
acaaacatca gcttaggaac tatgtcctat gtttttttgt tttttttt ttttaaaaaag
                                                                       600
gaatgtgagc tgttcccaaa acgtatgtcc ttcccccatg cctctaccct gcccttccac
aaactttctg atcttcagca cacactaccc aaccatcaag gctgagactt cccgtggcca
                                                                       660
                                                                     720
gcagtgtctc atgctggctt caagccccac agcactgctt tttteactt ctcttgtggt
                                                                      780
ttagactgtc tttagcccag caagagaatt cgatatcaag cttatcgata ccgtcgacct
                                                                       784
cgag
<210> 440
<211> 699
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (12)..(12)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (30)..(30)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (46)..(46)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (66)..(66)
<223> n equals a,t,g, or c
<400> 440
                                                                        60
ggttcatgct tnaaccccat ttgctggatn ctgctttgac cctgtntccc tgtactggtg
ttatgngaat cctggcacac attgctatcc cactctgaga ggmcwtgagc aaagaamccc
                                                                       120
```

```
cagtrgcaga agccacattg tgctcaggtc ttagttctaa caaacaccat tccccattaa
                                                                      180
                                                                      240
aaggaaccag gctccttaga gaaatggatg attccagggc tgtggcaggg taggtacaag
                                                                      300
atqaacctaa agtgtcgttt tataccagaa agtaagaaag tattaaagtg tttaaaaaaag
tgatgggagc atatcacaag gattcagaag ggataccaac tggctaaatc tggaacaatt
                                                                      360
                                                                     420
tgatcaccaa agtaagtaca ataataaatt ctaagcatt gaagtaaagg catttattat
                                                                      480
gtgtagtaat aataaataga taatgagaga gaaatgagga ctcatgctta cagtaaaatg
ccaggagctg actggcataa atgtggaagg aaggctggag tgggaaaatt attatttgc
                                                                      540
aaccatcatg gtaattacca gatcagataa ggatcaacag atgccaaatc tagggcaaat
                                                                      600
ttgatgagga gcagaatatt tgcactgtct ttgagagttt ctcccagaga tcacttattt
                                                                      660
                                                                      699
gttgtaaaaa aaaagaaaaa aaaaaaaaa aaactcgag
<210> 441
<211> 616
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (3)..(3)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (592)..(592)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (611)..(611)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (613)..(613)
<223> n equals a,t,g, or c
<400> 441
                                                                        60
agngacagca gttccctggc ttctggaagg agtgtcggtc tatccaaaaa atgtactaac
agatatqtaa accctgatga atacagtatg tgttatgaga agtggcccaa cgaagcagct
                                                                       120
catccaagtg agattctgaa gttgggctgg cgagtacacg aatggctttc ttactagaga
                                                                       180
gaagtgggac cctgctaatc tgtagcatgt ggtggcatca tggttactca aatatcactg
                                                                      240
gaacagaagg tgaaagaaga aatctgaaga gaaataaaac aaattttcgg cggttccaag
                                                                       300
atggccgaat aggaacagct ccagtctaca gctcccagtg tgagagatgc agaagatggg
                                                                       360
tgatttctgc atttccaact gagcaaacgg sacaccagaa gattatatcc catgctggc
                                                                      420
                                                                       480
tgggagggtc ccatgcccac ggagcctcgc tcattgctag cacagcagtc tgagatccat
                                                                       540
ctgcaaggtg ggcagtawgg ctggsggagg ggcacccacc attgctgagg cttgagtagg
                                                                       600
taaacgaagc arycaggaag ctcgaactgg gtggagccca ccgcaactca angaggcctg
                                                                       616
gctacctctg nanact
<210> 442
<211> 1842
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (67)..(67)
```

```
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (98)..(98)
<223> n equals a,t,g, \propto c
<220>
<221> misc_feature
<222> (212)..(212)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1838)..(1838)
<223> n equals a,t,g, or c
<400> 442
                                                                       60
gegacegege cetteageta getegetege tegetetget tecetgetge eggetgegea
                                                                      120
tgqcttnggc gttggcggcg ctggcggcgg ctcgagcngc ctgcgsagcc ggtaccagca
gttgcagaat gaagaagagt ctggagaacc tgaacaggct gcaggtgatg ctcctccacc
                                                                      180
ttacagcagc atttctgcag agagcgcaca tnattttgac tacaaggatg agtctgggtt
                                                                      240
                                                                     300
tccaaagccc ccatcttaca atgtagctac aacactgcc agttatgatg aagcggagag
                                                                      360
gaccaaggct gaagctacta tccctttggt tcctgggaga gatgaggatt ttgtgggtcg
qqatqatttt qatqatqctq accaqctqaq qataqqaaat gatqggattt tcatgttaac
                                                                      420
ttttttcatq qcattcctct ttaactqqat tqqqtttttc ctgtcttttt gcctgaccac
                                                                      480
                                                                      540
ttcagctgca ggaaggtatg gggccatttc aggatttggt ctctctctaa ttaaatggat
                                                                      600
cctqattqtc aggttttcca cctatttccc tggatatttt gatggtcagt actggctctg
                                                                      660
gtgggtgttc cttgttttag gctttctcct gtttctcaga ggatttatca attatgcaaa
                                                                     720
agttcggaag atgccagaaa ctttctcaaa tcccccagg accagagttc tctttattta
                                                                      780
ttaaagatgt tttctggcaa aggccttcct gcatttatga attctctctc aagaagcaag
                                                                      840
agaacacctg caggaagtga atcaagatgc agaacacaga ggaataatca cctgctttaa
aaaaataaag tactgttgaa aagatcattt ctctctattt gttcctaggt gtaaaatttt
                                                                     ന്മ
aatagttaat gcagaattct gtaatcattg aatcattagt ggttaatgtt tgaaaaagct
                                                                      960
                                                                     1020
cttgcaatca agtctgtgat gtattaataa tgccttatat attgtttgta gtcattttaa
                                                                     1080
gtagcatgag ccatgtccct gtagtcggta gggggcagtc ttgctttatt catcctccat
ctcaaaatqa acttqqaatt aaatatt¢a aqatatqtat aatqctqqcc attttaaagg
                                                                    1140
ggttttctca aaagttaaac ttttgttatg actgtgtttt tgcacataat ccatatttgc
                                                                     1200
                                                                     1260
tgttcaagtt aatctagaaa tttattcaat tctgtatgaa cacctggaag caaaatcata
                                                                    1320
gtgcaaaaat acatttaagg tgtggtcaaa aataagtctt taattggtaa ataataagæ
ttaatttttt atagcctgta ttcacaattc tgcggtacct tattgtacct aagggattct
                                                                     1380
aaaggtgttg tcactgtata aaacagaaag cactaggata caaatgaagc ttaattacta
                                                                     1440
aaatgtaatt cttgacactc tttctataat tagcgttctt cacccccacc cccaccccca
                                                                     1500
cccccttat tttccttttg tccctggtg attaggccaa agtctgggag taaggagagg
attaggtact taggagcaaa gaaagaagta gcttggaact tttgagatga tccctaacat
                                                                     1620
actgtactac ttgcttttac aatgtgttag cagaaaccag tgggttataa tgtagaatga
                                                                     1680
tgtgctttct gcccaagtgg taattcatct tggtttgcta tgttaaaact gtaatacaa
                                                                    1740
                                                                     1800
cagaacatta ataaatatct cttqtqtagc accttttaaa aaaaaaaaaa aaaaaaaaaa
                                                                     1842
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
<210> 443
<211> 1963
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
```

```
<222> (335)..(335)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1959)..(1959)
<223> n equals a,t,g, or c
<400> 443
                                                                    60
qgatcctcgc ggcggcggcg gtgcttacag cctgagaaga gcgtctcgcc cgggagcggc
ggcggccatc gagacccacc caaggcgcgt cccctcggc ctccagcgc tcccaagccg
                                                                  120
cagcggccgc gccccttcag ctagctcgct cgctcgctct gcttccctgc tgccggctgc
                                                                   180
gcatggcktt ggcgttggcg gcgctggcgg cggtcgagcc gcctgcgcag ccggtaccag
                                                                   240
                                                                   300
cagttgcaga atgaagaaga gtctggagaa cctgaacagg ctgcaggtga tgctcctcca
                                                                   360
ccttacagca qcatttctgc agagagcgca gcatnatttt gactacaagg atgagtctgg
                                                                   420
qtttccaaaq ccccatctt acaatgtagc tacaacactg cccagttatg atgaagcgga
gaggaccaag gctgaagcta ctatcccttt ggttcctggg agagatgagg attttgtggg
                                                                   480
                                                                  540
tcqqqatqat tttqatqatq ctqaccagct gaggataggaaatgatggga ttttcatgtt
aactttttc atggcattcc tctttaactg gattgggttt ttcctgtctt tttgcctgac
                                                                   600
cacttcagct gcaggaaggt atggggccat ttcaggattt ggtctctctc taattaaatg
                                                                   660
gatcctgatt gtcaggtttt ccacctattt ccctggatat tttgatggtc agtactggct
                                                                   720
ctggtgggtg ttccttgttt taggctttct cctgtttctc agaggattta tcaattatgc
                                                                   780
aaaagttcgg aagatgccag aaactttctc aaatctcccc aggaccagag ttctctttat
                                                                   840
ttattaaaga tgttttctgg caaaggcctt cctgcattta tgaattctct ctcaagaagc
                                                                   900
aaqaqaacac ctqcaqqaaq tqaatcaaga tgcagaacac agaggaataa tcacctgctt
                                                                  960
                                                                  1020
taaaaaaata aagtactgtt gaaaagatca tttctctcta tttgttccta ggtgtaaaat
                                                                  1080
tttaatagtt aatgcagaat tctgtaatca ttgaatcatt agtggttaat gtttgaaaaa
                                                                  1.104
gctcttgcaa tcaagtctgt gatgtattaa taatgcctta tatattgttt gtagtcattt
                                                                  1200
taagtagcat gagccatgtc cctgtagtcg gtagggggca gtcttgcttt attcatcctc
catctcaaaa tgaacttgga attaaatatt gtaagatatg tataatgctg gccattttaa
                                                                  1260
                                                                  1320
aggggttttc tcaaaagtta aacttttgtt atgactgtgt ttttgcacat aatccatatt
tgctgttcaa gttaatctag aaatttatt aattctgtat gaacacctgg aagcaaaatc
                                                                 1380
atagtgcaaa aatacattta aggtgtggtc aaaaataagt ctttaattgg taaataataa
                                                                  1440
gcattaattt tttatagcct gtattcacaa ttctgcggta ccttattgta cctaagggat
                                                                  1500
tctaaaggtg ttgtcactgt ataaaacaga aagcactagg atacaaatga agcttaatta 1560
ctaaaatgta attcttgaca ctctttctat aattagcgtt cttcaccccc accccaccc
                                                                  1620
                                                                  1680
ccaccccct tatttcctt ttgtctcctg gtgattaggc caaagtctgg gagtaaggag
                                                                  1740
aggattaggt acttaggagc aaagaaagaa gtagcttgga acttttgaga tgatccctaa
catactgtac tacttgcttt tacatgtgt tagcagaaac cagtgggtta taatgtagaa
                                                                  1800
tgatgtgctt tctgcccaag tggtaattca tcttggtttg ctatgttaaa actgtaaata
                                                                  1860
1920
                                                                 1963
<210> 444
<211> 1487
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1470)..(1470)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1487)..(1487)
<223> n equals a,t,g, or c
```

```
<400> 444
                                                                       60
gcgaccgcgc cccttcagc tagctcgctc gctcgctctg cttccctgct gccggctgcg
catggckwtg gcgttggcgg cgctggcggc ggtcgagccg gcctgcgcag ccggtaccag
                                                                      120
                                                                      180
cagttgcaga atgaagaaga gtctggagaa cctgaacagg ctgcaggtga tgctcctcca
                                                                     240
ccttacagca gcatttctgc agagagcgca gttttccacc tattccctg gatattttga
                                                                      300
tggtcagtac tggctctggt gggtgttcct tgttttaggc tttctcctgt ttctcagagg
                                                                      360
atttatcaat tatgcaaaag ttcggaagat gccagaaact ttctcaaatc tccccaggac
cagagttctc tttatttatt aaagatgttt tctggcaaag gccttcctgc atttatgaat
                                                                      420
tctctctcaa gaagcaagag aacacctgca ggaagtgaat caagatgcag aacacagagg
                                                                      480
                                                                      540
aataatcacc tgctttaaaa aaataaagta ctgttgaaaa gatcatttct ctctatttgt
tcctaggtgt aaaattttaa tagttaatgc agaattctgt aatcattgaa tcattagtgg
                                                                      600
ttaatgtttg aaaaagctct tgcaatcaag tctgtgat¢ attaataatg ccttatatat
                                                                     660
tgtttgtagt cattttaagt agcatgagcc atgtccctgt agtcggtagg gggcagtctt
                                                                      720
                                                                      780
gctttattca tcctccatct caaaatgaac ttggaattaa atattgtaag atatgtataa
                                                                      840
tgctggccat tttaaagggg ttttctcaaa agttaaactt ttgttatgac tgtgtttttg
cacataatcc atatttgctg ttcaagttaa tctagaaatt tattcaattc tgtatgaaca
                                                                      900
                                                                      960
cctggaagca aaatcatagt gcaaaaatac atttaaggtg tggtcaaaaa taagtcttta
attggtaaat aataagcatt aatttttat agcctgtatt cacaattctg cggtacctta
                                                                     1020
ttgtacctaa gggattctaa aggtgttgtc actgtataaa acagaaagca ctaggataca
                                                                    1080
aatqaaqctt aattactaaa atgtaattct tgacactctt tctataatta gcgttcttca
                                                                     1140
                                                                     1200
ccccaccc caccccacc cccttattt tccttttgtc tcctggtgat taggccaaag
tctgggagta aggagaggat taggtactta ggagcaaaga aagaagtagc ttggaacttt
                                                                     1620
tgagatgatc cctaacatac tgtactactt gcttttacaa tgtgttagca gaaaccagtg
                                                                     1320
                                                                     1380
ggttataatg tagaatgatg tgctttctgc ccaagtggta attcatcttg gtttgctatg
                                                                     1440
ttaaaactgt aaatacaaca gaacattaat aaatatctct tgtgtagcac ctttaaaaaaa
                                                                     1487
aaaaaaaaa aaaaaaaaa aaaaaaaaan cccggggggg ggccccn
<210> 445
<211> 1653
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (67)..(67)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (212)..(212)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1636)..(1636)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1653)..(1653)
<223> n equals a,t,g, or c
<400> 445
                                                                        60
gcgaccgcgc ccttcagcta gctcgctcgc tcgctctgct tccctgctgc cggctgcgca
 tggcttnggc gttggcggcg ctggcggcgg ctcgagccgc ctgcgsagcc ggtaccagca
                                                                       120
                                                                       180
 gttgcagaat gaagaagagt ctggagaacc tgaacaggct gcaggtgatg ctcctccacc
```

```
240
ttacagcagc atttctgcag agagcgcaca tnattttgac tacaaggatg agtctgggtt
                                                                     300
tocaaagccc ccatcttaca atgtagctac aacactgccc agttagatg aagcggagag
gaccaaggct gaagctacta tccctttggt tcctgggaga gatgaggatt ttgtgggtcg
                                                                      360
ggatgatttt gatgatgctg accagctgag gataggaaat gatgggattt tcatgttaac
                                                                      420
ttttttcatg gcattcctct ttaactggat tgggtttttc ctgtcttttt gcctgaccac
                                                                      480
ttcagctgca ggaaggtatg gggccatttc aggatttggt ctctctctaa ttaaatggat
                                                                      540
cctgattgtc aggttttcca cctatttccc tgcatttatg aattctctct caagaagcaa
                                                                      600
gagaacacct gcaggaagtg aatcaagatg cagaacacag aggaataatc acctgcttta
                                                                      660
aaaaaataaa gtactgttga aaagatcatt tctctctatttgttcctagg tgtaaaattt
                                                                     720
taatagttaa tgcagaattc tgtaatcatt gaatcattag tggttaatgt ttgaaaaagc
                                                                      780
tcttgcaatc aagtctgtga tgtattaata atgccttata tattgtttgt agtcatttta
                                                                      840
agtagcatga gccatgtccc tgtagtcggt agggggcagt cttgctttat tcatcctcca
                                                                      900
tctcaaaatg aacttggaat taaatattgt aagatatgta taatgctggc cattttaaag
                                                                      960
gggttttctc aaaagttaaa cttttgttat gactgtgttt ttgcacataa tccatatttg
                                                                     1020
ctgttcaagt taatctagaa atttattcaa ttctgtatga acacctggaa gcaaaatcat
                                                                     1080
agtgcaaaaa tacatttaag gtgtggtcaa aaabagtct ttaattggta aataataagc
                                                                    1140
attaattttt tatagcctgt attcacaatt ctgcggtacc ttattgtacc taagggattc
                                                                     1200
taaaggtgtt gtcactgtat aaaacagaaa gcactaggat acaaatgaag cttaattact
                                                                     1260
aaaatgtaat tottgacact otttotataa ttagogttot toaccoccac coccaccocc
                                                                     1.302
accecectta ttttcctttt gtctcctggt gattaggeca aagtctggga gtaaggagag
                                                                     1380
gattaggtac ttaggagcaa agaaagaagt agcttggaac ttttgagatg atccctaaca
                                                                     1440
tactgtacta cttgctttta caatgtgtta gcagaaacca gtgggttata atgtagaatg
                                                                     1500
atgtgctttc tgcccaagtg gtaattcatc ttggtttgct atgttaaaac tgtaaataca
                                                                    1560
acagaacatt aataaatatc tcttgtgtag caccttttaw aaaaaaaaaa aaaaaaaaaa
                                                                     1620
aaaaaaaaa aaaaancccg gggggggcc ccn
                                                                     1653
<210> 446
<211> 1830
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (67)..(67)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (97)..(97)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (211)..(211)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1813)..(1813)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1830)..(1830)
<223> n equals a,t,g, or c
```

<400> 446

```
gcgaccgcgc ccttcagcta gctcgctcgc tcgctctgct tccctgctgc cggctgcgca
                                                                       60
tggcttnggc gttggcggcg ctggcggcgg tcgagcngcc tgcgagccg gtaccagcag
                                                                     120
ttgcagaatg aagaagagtc tggagaacct gaacaggctg caggtgatgc tcctccacct
                                                                      180
                                                                      240
tacagcagca tttctgcaga gagcgcacat nattttgact acaaggatga gtctgggttt
                                                                      300
ccaaaqcccc catcttacaa tgtagctaca acactgccca gttatgatga agcggagagg
                                                                      360
accaaggctg aagctactat ccctttggtt cctgggagag atgaggattt tgtgggtcgg
                                                                      420
gatgattttg atgatgctga ccagctgagg ataggaaatg atgggatttt catgttaact
                                                                      480
tttttcatgg cattcctctt taactggatt gggtttttcc tgtctttttg cctgaccact
tcagctgcag gaaggtatgg ggccatttca ggatttggtctctctctaat taaatggatc
                                                                     540
ctgattgtca ggttttccac ctatttccct ggatattttg atggtcagta ctggctctgg
                                                                      600
                                                                      660
tgggtgttcc ttgttttagg ctttctcctg tttctcagag gatttatcaa ttatgcaaaa
gttcggaaga tgccagaaac tttctcaaat ctccccagga ccagagttct ctttatttat
                                                                      720
                                                                      780
taaaqatgtt ttctggcaaa ggccttcctg catttatgaa ttctctctca agaagcaaga
                                                                      840
gaacacctgc aggaagtgaa tcaagatgca gaacacagag gaataatcac ctgctttaaa
                                                                      900
aaaataaagt actgttgaaa agatcatttc tctctatttg ttcctaggtg taaaatttta
                                                                     960
ataqttaatq caqaattctg taatcattga atcatagtg gttaatgttt gaaaaagctc
                                                                     1020
ttgcaatcaa gtctgtgatg tattaataat gccttatata ttgtttgtag tcattttaag
                                                                     1080
tagcatgage catgteectg tagteggtag ggggeagtet tgetttatte atcetecate
                                                                     1 104
tcaaaatqaa cttqqaatta aatattgtaa gatatgtata atgctggcca ttttaaaggg
                                                                     1200
qttttctcaa aagttaaact tttgttatga ctgtgttttt gcacataatc catatttgct
gttcaagtta atctagaaat ttattcaatt ctgtatgaac acctggaagc aaaatcatag
                                                                     1260
tgcaaaaata catttaaggt gtggtcaaaa ataagtcttt aattggtaaa taataagcat
                                                                     1320
taatttttta tagcctgtat tcacaattd gcggtacctt attgtaccta agggattcta
                                                                    1380
aaggtgttgt cactgtataa aacagaaagc actaggatac aaatgaagct taattactaa
                                                                     1440
aatqtaattc ttqacactct ttctataatt agcgttcttc acccccaccc ccacccccac
                                                                     1500
cccccttatt ttccttttgt ctcctggtga ttaggccaaa gtctgggagt aaggagagga 1560
                                                                     1620
ttaggtactt aggagcaaag aaagaagtag cttggaactt ttgagatgat ccctaacata
                                                                     1680
ctgtactact tgcttttaca atgtgttagc agaaaccagt gggttataat gtagaatgat
gtgctttctg cccaagtggt aattcatctt ggtttgctat gttaaaactg taaatacaac
                                                                     1740
agaacattaa taaatatctc tt¢gtagca ccttttaaaa aaaaaaaaa aaaaaaaaa
                                                                     1800
                                                                     1830
aaaaaaaaa aancccgggg gggggccccn
<210> 447
<211> 2027
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (294)..(294)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1976)..(1976)
```

<223> n equals a,t,g, or c

<223> n equals a,t,g, or c

<223> n equals a,t,g, or c

<221> misc\_feature
<222> (1981)..(1981)

<221> misc\_feature <222> (1985)..(1985)

<220>

<220>

```
<220>
<221> misc feature
<222> (2021)..(2021)
<223> n equals a,t,g, or c
<400> 447
ggcacgagtt gggagcagct ctgcgtgcgg ggcctcagag aatgaggccg gcgttcgccc
                                                                      60
tgtgcctcct ctggcaggcg ctctggcccg ggccgggcgg cggcgaacac cccactgccg
                                                                     120
acceptgctgg ctgctcggcc tcgggggcct gcaccaccct gcaccacgct accatgaagc
                                                                    180
                                                                     240
ggcaggcggc cgaggaggcc tgcatcctgc gaggtggggc gctcagcacc gtgcgtgcgg
                                                                     300
gcgccgagct gcgcgctgtg ctcgcgctcc tgcgggcagg cccagggccc gganggggct
                                                                    360
ccaaagacct gctgttctgg gtcgcactgg agcgcaggcg ttcccactgc amcctggaga
                                                                     420
acgageettt geggggttte teetggetgt eeteegaeee eggeggtete gaaagegaea
                                                                     480
cgctgcagtg ggtggaggag ccccaacgct cctgcaccgc gcggagatgg gtacttccag
                                                                     540
gccaccggtg gggtcgagcc cgcagctgga aggagatgcg atgccacctg ygcgccaacg
                                                                     600
ctacctgtgc aagtaccagt ttgaggtctt gtgtcctgcg ccgcgccccg gggccgcctc
taacttgage tategegege cetteeaget geacagegee getetggaet teagteeace
                                                                     660
                                                                     720
tgggaccgag gtgagtgcgc tctgccgggg acagctcccg atctcagtta cttgcatcgc
                                                                    780
ggacgaaatc ggcgctcgyt gggacaaact ytcgggcgat gtgttgtgtc cctgcccgg
                                                                     840
gaggtacctc cgtgctggca aatgcgcaga gctccctaac tgcctagacg acttgggagg
ctttgcctgc gaatgtgcta cgggcttcga gctggggaag gacggccgct cttgtgtgac
                                                                     900
                                                                     960
cagtggggaa ggacagccga cccttggggg gaccggggtg cccaccaggc gcccgccggc
                                                                    1020
cactgcaacc agccccgtgc cgcagagaac atggccaatc agggtcgacg agaagctggg
                                                                    1080
agagacacca cttgtccctg aacaagacaa ttcagtaaca tctattcctg agattcctcg
atggggatca cagagcacga tgtctaccct tcaaatgtcc cttcaagccg agtcaaaggc
                                                                    1140
                                                                   1200
cactatcacc ccatcaggga gcgtgatttc caagtttaat tctacgactt ctctgccac
                                                                    1260
tecteagget ttegacteet cetetgeegt ggtetteata tttgtgagea cageagtagt
                                                                    1320
agtgttggtg atcttgacca tgacagtact ggggcttgtc aagctctgct ttcacgaaag
cccctcttcc cagccaagga aggagtctat gggcccgccg ggctggagag tgatcctgaa
                                                                    1380
\verb|gcccgctgct| | ttgggctcca| | gttctgcaca| | ttgcacaaac| | aatggggtga| | aagtcgggga|
                                                                    1440
                                                                    1500
ctgtgatctg cgggacagag cagagggtgc cttgctggcg gagtcccctc ttggctctag
                                                                    1560
tgatgcatag ggaaacaggg gacatgggca ctcctgtgaa cagtttttca cttttgatga
aacggggaac caagaggaac ttacttgtgt aactgacaat ttctgcgaa atcccccttc
                                                                   1620
ctctaaattc cctttactcc actgaggagc taaatcagaa ctgcacactc cttccctgat
                                                                    1680
                                                                    1740
gatagaggaa gtggaagtgc ctttaggatg gtgatactgg gggaccgggt agtgctgggg
                                                                    1800
agagatattt tcttatgttt attcggagaa tttggagaag tgattgaact tttcaagaca
ttggaaacaa atagaacaca atataattta cattaaaaaa taatttctac caaaatggaa
                                                                    1860
                                                                    1920
aggaaatgtt ctatgttgtt caggctagga gtatattggt tcgaaatccc agggaaaaaa
1980
                                                                   2027
ngggnccaag ctttacgtac gcgggcatgc gacgtcaagc pttcca
<210> 448
<211> 699
<212> DNA
<213> Homo sapiens
<400> 448
                                                                      60
aattcggcac gagttacagg cataagccac catgcttggt cctcattata ttttaacaca
cccctttcat tatttctaaa tgctggaaag ttctttatta cattgagcta cagttcattt
                                                                     120
                                                                     180
tgccttaata gtcacaaact taatcctaat taaatacata cctttcccct aagttttctt
                                                                     240
atcttcaggc tacagaatta ttgagattac tctcaaccat tcctcatgtt agaaactctt
                                                                     300
tctcaattta tttccatcct ctttgtcctt ctctggataa tctcagattt gatactgtgt
tttcttaaat gtggtaatcc cggaactcta gatatggttc tcctatttg gactaatcag
                                                                     360
                                                                     420
tatatacatt ccagtagatc cattttgtcc tttatctaga tacagtattt ctagtagctt
                                                                     480
gaaasycatt gccttttaaa agttgtttta ggattaaaaa tcacaaacca aatatccact
gtcctcaaga gaatcaccta acacccataa ggattcttgt agactcatgg taaaggggta
                                                                     540
gctattgttt tatatcagat agcaggagta gctattcttt tatatcagat aaaacacatt
                                                                     600
```

```
660
aaagcaacat gaataggcat ttgttaaaag raggatattc caaatagtca acacatatta
                                                                      699
aaggaattcc ccaaccatcc actaaatgat ccaggggaa
<210> 449
<211> 1649
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1249)..(1249)
<223> n equals a,t,g, or c
<400> 449
                                                                       60
agetecaceg eggtggegge egetetagaa etagtggate eeeegggetg eaggaatteg
                                                                      120
gcacgaggga tctgtgtggc atggtatgtg tgtttatgtg tattgtgggt gtctgtgtgg
catgctgtgc gtgtgtgtat tgtggatgtt tactgtcccg ggcagtagaa aggacgtcgg
                                                                      180
                                                                      240
ggaagcagcc ccagcatcag ggacaggcca ggagtgcaga atgcatggaa gctggtcagg
tcggagcctg ggatgaagga agcacagaga tgcaagggtg ccagggccca tggaaccaag
                                                                      300
agccgatgat caaggccaca gtgcacacagccctggaggc aaaggacata ttcatttcac
                                                                     360
aaggattaaa aagcatgggc caaggctggg ccccaggcca ggactgggga tacagagtgg
                                                                      420
                                                                      480
atcagtcccc atccctgccc ccaggtgctt acccacaccc attcacctca caggtttccc
                                                                     540
cacccagcc ccttggcgag ctcctcctca ttcctcaaar cgtcgctkag gtcacgctcc
                                                                      600
ttcccgaggc ctctccccat cctctaaaac accctctccc tgctgcccac ttgcagcaca
gtcagagagc tccgtggcct gtttccactg gactgagtct tctggggggt gctggtgcag
                                                                      660
                                                                      720
agcagarccc tgggctggga gtcccggcac ctcgttccac tccctcaccc acagcctcgc
                                                                      780
tgtttaacct caggcaggcc gtgtmctcc tcagcctcac tttccccttg tgtaaaatga
gggaagggac tgcgccttct aagccatctt tcagcttaaa acctctttga ccttctatct
                                                                      840
                                                                      900
ggctaatgga ggtgctgacc aggggcaaga agggatttga aaaacgcttt gaaaaattca
                                                                     960
tagcaggagg caaaggagaa agagtettta ttttcgtaga gegggaggca ggaggætta
tggacagagg ctgtcgatga aaaggacagc atctcagagc actttgtggc atttaatgtc
                                                                     1020
taatgcctcc tcccattaaa gcagtggcat caaatattta ccaaagcagc attaaaaatt
                                                                     1080
aacctttacc atggggatgt ataaaggccc taagttccct gagaagtgac cgaacatcag
                                                                     1140
                                                                     1200
gagggtaaag tgacaggaag gaaggctaca agcgggttgt gaataatgga agcccccaaa
                                                                     1260
ggtccccaa cacagctccc tgttgacccc actcccaaag ccagggcanc ctccggccgt
                                                                     1320
gtctctgcag aggctcccag cccttcggag actcccagag ggcctgcagg ataaggacag
gccctcagct gggcatccac agccttccat ggcctggccc tgcctctctgggcagctggg
                                                                    1380
                                                                     1440
atctgtagga tggaaaggaa tgagtctgtc ggagttggaa gagaccaggg gaggaagtgg
ggagtggtcc gggcactgga aatagcacgt gcagaggcac tgaggcagag acagctgcac
                                                                     1500
atcaatccat cagaagagca gccaggtggc atgagtgtgg gggaggaagg aagcgcagga
                                                                     1560
ggggacaggt gggagatgca ggtaggtctg actgtgcagg gccatggtaa gatgtgggct
                                                                     1620
                                                                     1649
tctcggtcca gggacagggg tgccctcga
<210> 450
<211> 1570
<212> DNA
<213> Homo sapiens
<400> 450
ggatctgtgt ggcatggtat gtgtgtttat gtgtattgtg ggtgtctgtgtggcatgctg
                                                                      60
                                                                      120
tgcgtgtgtg tattgtggat gtttactgtc ccgggcagta gaaaggacgt cggggaagca
                                                                      180
gccccagcat cagggacagg ccaggagtgc agaatgcatg gaagctggtc aggtcggagc
ctgggatgaa ggaagcacag agatgcaagg gtgccagggc ccatggaacc aagagccgat
                                                                      240
                                                                      300
gatcaaggec acagtgeaca cagecetgga ggeaaaggae atatteattt caeaaggatt
                                                                      360
aaaaagcatg ggccaaggct gggccccagg ccaggactgg ggatacagag tggatcagtc
                                                                      420
cccatccctq ccccaggtg cttacccaca cccattcacc tcacaggttt ccccaccca
gccccttggc gagctcctcc tcattcctca aaacgtcgct gaggcacgc tccttcccga
                                                                     480
```

```
qqcctctccc catcctctaa aacaccctct ccctqctqcc cacttqcaqc acagtcaqaq
                                                                      540
                                                                      600
ageteegtgg cetgttteea etggaetgag tettetgggg ggtgetggtg cagageagag
                                                                      660
ccctgggctg ggagtcccgg cacctcgttc cactccctca cccacagcct cgctgtttaa
cctcaggcag gccgtgtccc tcctcagcct cactttcccc ttgtgtaaaa tgagggaagg
                                                                      720
                                                                      780
gactacgcct tacatcttca gcttaaacct ctttgacctt ctatctggct aatggaggtg
                                                                      840
ctgaccaggg gcaagaaggg atttgaaaaa cgctttgaaa aattcatagc aggaggcaaa
                                                                     900
ggagaaagag totttatttt cgtagagogg gaggcaggæg gagttatgga cagaggotgt
cgatgaaaag gacagcatct cagagcactt tgtggcattt aatgtctaat gcctcctcc
                                                                      960
attaaagcag tggcatcaaa tatttaccaa agcagcatta aaaattaacc tttaccatgg
                                                                     1020
                                                                     1080
ggatgtataa aggccctaag ttccctgaga agtgaccgaa catcaggagg gtaaagtgac
                                                                     1140
aggaaggaag gctacaagcg ggttgtgaat aatggaagcc cccaaaggtc ccccaacaca
                                                                     1200
gctccctgtt gaccccactc ccaaagccag ggcagcctcc ggccgtgtct ctgcagaggc
toccagocot toggagacto coagagggoo tgoaggataa ggacaggooo toagotgggo
                                                                     1260
atccacagee ttecatggee tggeeetgee tettgggea getgggatet gtaggatgga
                                                                    1320
                                                                     1380
aaggaatgag tetgteggag ttggaagaga eeaggggagg aagtggggag tggteeggge
                                                                     1440
actggaaata gcacgtgcag aggcactgag gcagagacag ctgcacatca atccatcaga
                                                                     1050
agagcagcca ggtggcatga gtgtggggga ggaaggaagc gcaggagggg acaggtggga
                                                                     1560
gatgcaggta ggtctgactg tgcagggcca tggtaagatg tgggcttctc ggtccaggga
                                                                     1570
caggggtgcc
<210> 451
<211> 774
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (618)..(618)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (715)..(715)
<223> n equals a,t,g, or c
<400> 451
                                                                       60
gtctacctcc gggctgaaac gtcaccatgc ctccccacag acagacggat ggacagatgg
gcctccctgc acctgctctg tgggtgtggg ggctcctgct cagcagcagt ttccagaoc
                                                                     120
ttctccctgc tttccccaag ccacccgcct tgaatctggg gtgctctacc agacccatcc
                                                                      180
                                                                      240
cctcatttct aaagatttga gccactagtc gtgtccctct ccctcagaaa tgccttggtg
acacttggct gctttcaact cttccaccca tctgcctctt ggtctcatct ttaccttctg
                                                                      300
ctaaaggtcc tgaccccac cccgccacg ccatggggca ccccatggtg gtgcgtcctt
                                                                      360
                                                                      420
gggagcagct ctgtcccttt ccccgtggcc tttgccccgc ctcctatgac ttcgattccc
                                                                      480
acctgtccc gaccctggg accactgacc gggcccgatc accctgtcac tgccctgtca
totgottaco coacacggtg ctotgotgac ccaggtottg ctgtctccca ayaccccac
                                                                     540
gaggettyce gtegeteetg gacaetrmag getgageeeg etgeeeegee geeteeatga
                                                                      600
                                                                      660
ggaaggcttt tcctctgnga gccccaggcc accetttccc tcctttaagt aattacttaa
                                                                      720
gtcccttgcc agggccctcc cagtaccctt tctaaagaca cccctgcccc agcangctgc
                                                                      774
aggetectge tecaetttee teteaggece tegtegetgt ggtgetgeet ttga
<210> 452
<211> 1396
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
```

```
<222> (1187)..(1187)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
\langle 222 \rangle (132\overline{5})...(1325)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1327)..(1327)
<223> n equals a,t,q, or c
<400> 452
                                                                        60
cctcgagcca tgtgtccagg tggggcagat catggagggc gcccaggtgc ggtgctgagg
                                                                       120
ctgagcatgc actggctggg gagggtgggc agagcaggag gaaatccctt gttctccgga
gctggagagc cagaaagagc cctgcagcct gggcctcatc atcacacctc gccctcaagg
                                                                       180
                                                                       240
cctccaggca cagcatccac tgccagcctc tgctcctgcc tctgagggtc tgtctccaag
                                                                       300
gtcttttggg ggctgcccca gctcccccaa cacagacagc accagagctg ggcccacctg
                                                                      360
tgaggtgctg agttccccat ctcagagact gtggagcag aggcagggag gcgcttgatg
tcggatggag aaaggacagg ggaggggtgt ggggctcagg gccccgccag gtgaaggaac
                                                                       420
                                                                       480
aagcttggaa gggtgtcctt atgtctgaga gttggggaga cacccccaag ccccagatgg
                                                                       450
rcctcgaatg ccaggcaggg ccaagctggg cccagaagtg ggawggwtcc cttggctgcc
                                                                       600
ccaggaatgc aggttccggg gcaagaatcc agccctggct ggttgaagtc catcccaagt
ctccctcccc acgaggctcc tgcagatgcc aggaatgggg ctggattcca gattccaagc
                                                                       660
ctggcsgccc agcccctatc tgggacccca gcccagagcc cccaggcctg gcctccaacc
                                                                       720
                                                                      780
tggccccagc ctcaggggag ctgaatt@g agaatcctgt cctaggagcc agaagcgggg
                                                                       840
gagggaggra gggcggccct gtcctgggtg caggcccggg ggctgggggy tgcccgcccg
                                                                       900
totgggtcag cogcagotgc aaacoggccc tggctgagtc atggsgcctc catctccagg
                                                                     960
gcctggcttg aggtgggaa tagcagtgag gttggacatc caggcacctg agggtgggæ
                                                                      1020
gggctccctg cggctggggt ggccagtggc acctggctgt tgcccccctg cacccagcc
                                                                      1080
ctttggcccc caagtetetg ccacetecet ggggttetge teccatatte etcacaceca
gcacagaacc cagcatgtct cctgtagaca cctgcatata aaccctgact cacacacaca
                                                                      1140
cacacacaca cacacacgca cæatgcagg ccaggctcct cggccangtc accctaccgg
                                                                     1200
cagageteta gacatteetg geetetggtg actattette aggeagetea ecetgeaagt
                                                                      1260
ctttattgag cacctactgt gtgccaggca gtggtacagc aagggcagaa gccccacctc
                                                                      1320
                                                                     1380
caagnanctg aacccctgcc gtggcagaga cagaaaacaa aggcagcacc acgcgacga
gggctaaaga gaacgc
                                                                      1396
<210> 453
<211> 1397
<212> DNA
<213> Homo sapiens
<400> 453
tegacecaeg egteegetga attgeggeeg tatgeggge tetgtggagt geacetgggg
                                                                        60
ttgggggcac tgtgccccca gcccctgct cctttggact ctacttctgt ttgcagcccc
                                                                      120
                                                                       180
atttggcctg ctgggggaga agacccgcca gctgcttgag tttgacagca ccaacgtgtc
                                                                       240
cgatacggca gcaaagcctt tgggaagacc atatcctcca tactccttgg ccgatttctc
ttggaacaac atcactgatt cattggatcc tgccaccctg agtgccacat tcaaggcca
                                                                      300
                                                                       360
ccccatgaac gaccctacca ggacttttgc caatggcagc ctggccttca gggtccaggc
                                                                       420
cttttccagg tccagccgac cagcccaacc ccctcgcctc ctgcacacag cagacacctg
teagetagag gtggccetga ttggagcete teceegggga aacegtteee tgtttggget
                                                                       480
ggaggtagcc acattgggcc agggccctga ctgcccctca atgcaggagc agcactccak
                                                                       540
                                                                       600
cgaacgatga atatgcaccg gccgtcttcc agttggacca gctactgtgg ggctccctcc
                                                                       660
catcaggett tgcacagtgg cgaccagtgg cttactccca gaagccgggg ggccgagaat
cagecetgee etgecaaget teceetette atcetgeett ageatabet etteceeagt
                                                                      720
```

```
780
cacccattqt ccgaqccttc tttgggtccc agaataactt ctgtgccttc aatctgacgt
                                                                   840
tcggggcttc cacaggccct ggctattggg accaacacta cctcagctgg tcgatgctcc
                                                                   900
tgggtgtggg cttccctcca gtggacggct tgtccccact agtcctgggc atcatggcag
                                                                   960
tgqccctggg tgccccaggg ctcatgctgc tagggggcgg cttggttctg ctgctgcacc
                                                                  1020
acaagaagta ctcagagtac cagtccataa attaaggccc gctctctgga gggaaggaca
                                                                  1080
ttactqaacc tgtcttgctg tgcctcgaaa ctctggaggt tggagcatca agttccagcc
ggccccttca ctcccccatc ttgcttttct gtggaacctc gaggccagc ctcgacttcc
                                                                 1140
tggagacccc caggtggggc ttccttcata ctttgttggg ggactttgga ggcgggcagg
                                                                  1200
ggacagggct attgataagg tccccttggt gttgccttct tgcatctcca cacatttccc
                                                                  1260
                                                                  1320
ttggatggga cttgcaggcc taaatgagag gcattctgac tggttggctg ccctggaagg
1380
                                                                  1397
aaaaaaggg cggccgc
<210> 454
<211> 1368
<212> DNA
<213> Homo sapiens
<400> 454
                                                                   60
ctgaattgcg gccgtatgcg cggctctgtg gagtgcacctggggttgggg gcactgtgcc
cccagcccc tgctcctttg gactctactt ctgtttgcag ccccatttgg cctgctgggg
                                                                   120
                                                                   180
gagaagaccc gccagctgct tgagtttgac agcaccaacg tgtccgatac ggcagcaaag
cctttgggaa gaccatatcc tccatactcc ttggccgatt tctcttggaa caacatcact
                                                                   240
gattcattgg atcctgccac cctgagtgcc acatttcaag gccaccccat gaacgaccct
                                                                   300
accaggactt ttgccaatgg cagcctggcc ttcaggtcca ggccttttcc aggtccagcc
                                                                   360
                                                                   420
qaccaqccca acccctcgc ctcctgcaca cagcagacac ctgtcagcta gaggtggccc
                                                                  480
tgattggage ctctccccgg ggaaaccgtt ccct&ttgg gctggaggta gccacattgg
                                                                   540
gccagggccc tgactgcccc tcaatgcagg agcagcactc catcgacgat gaatatgcac
                                                                   600
cggccgtctt ccagttggac cagctactgt ggggctccct cccatcaggc tttgcacagt
                                                                   660
ggcgaccagt ggcttactcc cagaagccgg ggggccgaga atcagccctg ccctgccaag
cttcccctct tcatcctgcc ttagcatact ctcttcccca gtcacccatt gtccgagcct
                                                                   720
                                                                   780
tctttgggtc ccagaataac ttctgtgcct tcaatctgac gttcggggct tccacaggcc
ctggctattg ggaccaacac tacctcagct ggtcgatgct cctgggtttg ggcttccctc
                                                                   840
cagtggacgg cttgtcccca ttagtcctgg gcatcatggc agtggcctgg gtgccccagg
                                                                   900
gctcatgctg ctagggggcg gcttggttct gctgctgcac cacaagaagt actcagagta
                                                                   960
                                                                  1020
ccagtccata aattaaggcc cgctctctgg agggaaggac attactgaac ctgtcttgct
gtgcctcgaa actctggagg ttggagcatc aagttccagc cggccccttc actccccat 1080
                                                                  1140
cttgcttttc tgtggaacct cagaggccag cctcgacttc ctggagaccc ccaggtgggg
                                                                  1200
cttccttcat actttgttgg gggactttgg aggcgggcag gggacagggc tattgataag
gtccccttgg tgttgccttc ttgcatctcc acacatttcc cttggatggg acttgcaggc
                                                                  1260
ctaaatgaga ggcattctga ctgctggct gccctggaag gcaagaaaat agatttattt
                                                                  1320
1368
<210> 455
<211> 1763
<212> DNA
<213> Homo sapiens
<400> 455
ccacgcgtcc gattcaagtg atcaagattt taaaatatga aaagaaactg gccaaaatgt
                                                                   120
gctttttaat gatattcacc ttcctggtct gttggatgcc ttatatcgtg atctgcttct
tggtggttaa tggtcatggt cacctggtca ctccaacaat atctattgtt tcgtacctct
                                                                   180
ttgctaaatc gaacactgta tacaatccag tgatttatgt cttcatgatc agaaagtttc
                                                                   240
                                                                   300
gaagatccct tttgcagctt ctdgcctcc gactgctgag gtgccagagg cctgctaaag
acctaccage agetggaagt gaaatgcaga teagaceeat tgtgatgtea eagaaagatg
                                                                   360
gggacaggcc aaagaaaagt gactttcaac tcttcttcca tcatttttat catcaccagt
                                                                   420
gatgaatcac tgtcagttga cgacagcgac aaaaccaatg ggtccaaagt tgagtaatc
                                                                  480
```

```
540
caagttcgtc ctttgtagga atgaagaatg gcaacgaaag atggggcctt aaattggatg
                                                                    600
ccacttttgg actttcatca taagaagtgt ctggaatacc cgttctatgt aatatcaaca
                                                                    660
gaaccttgtg gtccagcagg aaatccgaat tgcccatatg ctcttgggcc tcaggaagag
gttgaacaaa aacaaattct tttaattcaa cgggtgcttt acataatgaa aaaaccactt
                                                                    720
                                                                    780
840
aatatattt ttaaattact ctatttcca aaacacgtaa tgcattttc tcgaaaatac
                                                                   900
cttactgtaa aaataactgt cgcgtacaca tgtgtgaagt agctagaaæ tactgaattt
ttttttgtac tgttggactc tattcagtgt catgtcctat atctgatcaa gttatcaagg
                                                                    960
agataattct agaatgaaaa agaaaatcct cttgttggaa acaaaagacg ttttatatgt
                                                                   1020
gcagtatgac aaagaggagt ttcagagaca actttgaatc cttgtcagcc tggagaccag
                                                                   1080
caccagagga atctacaagg caaactccca tatatttgct tcccccaaat tgctgcccct
                                                                   1140
acagactcaa agctcttttt ctttgttttg ttgtttctct aaaaatttac tgttctttgt
                                                                   1200
cgatgctata taagccaggg agttctaaga cgccagctct ttgagatttg ctcattcccc
                                                                   1260
                                                                   1320
tgtatttccc acatatatat tacatatacc cgctaataaa ttatgtttg tttttctctt
gtcaatctgt cttttgttat aggggcccca gccaaggaac ctaaagtggg tagaaggaaa
                                                                   1380
aattattttt totttoocta caaactgaac atggattatt agaactcaag gttttoattg
                                                                   1440
                                                                    1500
acaatataga aaagaaacac tgaatcattt tattttattg cccaattttt atttcttata
tgactctagt gtttcatctt cataattaat catgtttgaa ggatttctga gtgactcagc
                                                                   1560
agcctgttaa agaaggatga accaaagaaa acatttcact aaatgtgctt ttaaaaaatca
                                                                    1620
agtgtattgc tggttctgct gcagtatgta gtcgaagaat aaattagtaa attgcttctg
                                                                   1680
agggtctgaa attgaataaa gtaatggctt tgtatttta taaaaaaaaa aaaaaaaaa
                                                                   1740
                                                                   1763
aaaaaaaaa aaaaaaaaa aaa
<210> 456
<211> 1274
<212> DNA
<213> Homo sapiens
<400> 456
gcccacgcgt ccgctgttgc tcaaaggaaa taggagttgg tgtgcttgtg accaaggggt
                                                                      60
tacacttmca gcttttaaaa ttctccttta catgtgctca gtgttttgkt ttgtgttttg
                                                                     120
gtttctgttt tttattttaa ttcccacatt gggcacaaga atcagaatat ggatagctag
                                                                     180
tttaagaaac ttttgtgggt gcactgtagc atagatgaca gaatttgatg ttccccccat
                                                                     240
                                                                    300
ctccaattca gttcagggca ttccacagtt aaacagaat gggaacgtgg ggctcttata
                                                                     360
aatgaatggg cgctcacagt tttggttttc agctcttcat gtctgtaagt gtgctttggg
graggetatg tetgtatggt egatteteag ttateacatt tgeeteteet eccaetacet
                                                                     420
                                                                     480
tcatgamcat tcagtgctgt tcgcactgca gttagagaga agggacggac agttggtgac
                                                                     540
actcaqccac attgctactt ttatctgttc tggtaagaag ttagatagat ggtagattga
agcaattggg tagaattagt tgggggaata tttatgagtt gctgtgtttg ttgattagtt
                                                                     600
ccatctcttt cccattttaa ctgagaattg attatatata gctctaagta tataggtatt
                                                                     660
taaacaaccc cacaagcggc tgtatcagta æatttatta attccactat agtgagggag
                                                                    720
                                                                     780
gatttccatt ctaaatacct tattttgagg gatttataaa acttagttgt aaaagagaaa
                                                                     840
gcccacatag tgggaataaa ttgcttcagc catttttagt atttgagagc actagggaag
                                                                    900
atgtttagta gctgtgtgga tgccttttt cacaccctgt ctattgaatg ctgcatccat
                                                                     960
tcacgaagtt aaatgttaca tgcagttagt ccttaatgtg gactggatct gtacttttgt
tttggattaa aacatttaaa gatttttgaa gtgcagctac tccccacgtg catttgmtac
                                                                    1020
acataaaagt catactgtgt gtgcacaaag agtacatgga ttttccagca taytgcttta
                                                                    1080
                                                                    1140
aaaaattata taaactgtta aaatattaac acctcaggct acctgctgta ttctgtccca
                                                                    1200
ttgacccctg gaattggatt tactgcaagt gattgataat tcaattatgt ggcttttccc
ctttaatctt gccatttaaa ttacagtaga aagacaaaat caagtaaaat aaagtgttag
                                                                    1260
                                                                   1274
ataatagaaa gagt
<210> 457
<211> 1124
<212> DNA
<213> Homo sapiens
```

```
60
gattgcctac aaatgtcaga ggtataatgg tttggttttc atgctggctt ctcacacagt
                                                                      120
ccatcacaqt qattcttqga qccagaggga ggtatggaag actgtgtgtt ctccaaggga
                                                                      180
qqcactqtqq tctqqtqqat aagadggga gtcccaatcc tttctccgca gatgtgctag
                                                                      240
ctgtgcactc tgggcaagtt tctcactctc ctgagcctca gcgtctttat caatatgacg
                                                                      300
agaataaata cagcacctgc ctacctcatg gggttgtttc agcagtcaat gagatcatgt
                                                                     360
atatgaagca tttagtatac ctagcaccta ataaaagctc aacaaccagt agtctatta
                                                                      420
ctaacaaaat ggagctagaa ggatgcatta gtttaaacaa aatcttgagg cagatactgg
gagtacctgt ctttattctt caacttgagt ctcctcccag tttgtttgga taaaaactca
                                                                      480
aatgtaatat ttttaatttg ggtaaaagaa cttctgagaa agggttgaac atctatccac
                                                                      540
                                                                      600
ttgccttttt atgcctaggg aactagagat acttgttggc ggcatcgcaa atgttgctga
                                                                      660
cttatgaagt actgcagtat ctgaatacct ttttgtagga taatctaaag tttccaaaaa
atagtatagt gttgtagtga agaacttgga ctcttaagcc agattatttt gttcagattc
                                                                      720
                                                                     780
agaaatcccc tccactccac ccactggctg tatagccttg cccaaatcactgaatctctg
                                                                      840
tgtgtctgcg tcctggtgtg tgaaatgagg acaatagtag ctattgggta gggttggcct
                                                                      900
qqqqtctaag tgatqactgc ctgtaaggtg tttagaacag tatttggtaa acaactggca
                                                                      960
ctcaatcagt gttgctgtga ttatgatgat ttattccaag gttgcttgct ttccagtaca
                                                                     1020
tcatagacta ctacttgacc aaatttacta gcaatggagt acctgaaagt tttacatgtg
                                                                     1080
cacatttgca tgaaaacccc acaaaatttc cctttgaaca gtgaagggga cggcacaaag
                                                                     1124
ataattcttg gcactaagct taaaaaaaaa aaaaaaaaac tcga
<210> 458
<211> 2409
<212> DNA
<213> Homo sapiens
<400> 458
                                                                       60
ccacgcgtcc gcttcgacga cgacacctgc agaagtgcgg acccgccatg ccgcgccacc
                                                                      120
tetegggaet geteetgetg etetggeege tgetgetget getgeegeeg acceeegeeg
                                                                      180
cccccggccc cctggcccgc ccgggtttgc ggaggctggg cacgcggggc ccagggggca
                                                                      240
gtcccgggcg ccgcctggc tctgctgtcc ccacccgcgc gccctattcc ggggccggcc
                                                                      300
agcccggcgg ggcccgaggc gcaggtgttt gcaggagcag gcccttggat ttggtgttca
tcatcgatag ttcccgcagt gtgcggcccc tggagttcac caaagtgaag acctttgtct
                                                                      360
cccagataat tgacactctg gacattgggg cggcagatac acggtggca gtggtgaact
                                                                     420
atgctagcac cgtgaagatt gagttccatc tccagaccca ctcagataaa cagtccttga
                                                                      480
                                                                      540
aacaggctqt qqctcqqatc acacccctgt ctacaggcac catgtccggc ctggctatcc
                                                                      600
agacagcaat ggatgaggcc ttcacggtgg aggcaggagc tcgggggccc acttccaaca
                                                                      660
tccctaaggt ggccatcatc gtgacagatg ggaggcccca ggaccaggtg aatgaggtgg
cggctcgggc ccgggcatct ggtattgaac tctacgccgt gggcgtggac cgggcagaca
                                                                      720
tggagtccct caagatgatg gccagcgagc ccctagacga gcacgttttc tatgtggaga
                                                                      780
cctacggggt cattgagaaa ctctcctcta gattccagg aaccttttgc gctctggacc
                                                                      840
                                                                      900
cgtgtgtgct tggcacacac cggtgccagc acgtgtgtgt cagtgatggg gaaggcaagc
accactgtga gtgcagccaa ggctactcct tgaacgccga tcagaagacg tgttcagcta
                                                                      960
                                                                     1020
tcqataaqtq tgctctgaac actcacggtt gtgaacacat ctgtgtgaac gacagaactg
                                                                     1080
qctcttacca ctgtgagtgc tacgaaggtt acaccctgaa ccaagacagg aagacttgtt
                                                                     1140
cggctcaaga ccaatgtgcc tttggtacac atggctgcca gcacatttgt gtaaatgaca
                                                                     1200
gagatgggtc ccatcactgt gaatgctacg agggttatac tctgaatgct gacaacaaaa
                                                                     1260
cgtgttcagt tcgcagcgag tgtgctgggg gctgcacgg ctgccagcac ctgtgtgtgg
acgacgggcc cgcggcctat cactgcgatt gtttccccgg ctacaccctg accgaagacc
                                                                     1320
                                                                     1380
ggaggacgtg cgcagccatt gaagaagcac gaagactcgt ctctacagaa gatgcttgtg
ggtgtgaagc caccetggce ttccaggaga gggccagete atatetgcag agactgaatg
                                                                     1440
                                                                     1500
ccaaactcga tgatattttg ggcaagttgc aagcagatgc gtatggacaa atacatcgtt
                                                                     1560
gaattactca gatttttcac ctggatatac ggagagcttg gtctatttaa tatttttgca
                                                                     1620
tacttcaatg ttcctgctaa taatttgcca ttgcaaatgc tttaatatta ctggataagt
                                                                     1680
agtatgagga tettetagag aateagtægg acataaaegt teacateett aagageaaae
                                                                     1740
tttagtgtct ctaagctatg actgtgaaat gattcatggg gaatagaatg aaaagtttgg
```

<400> 457

1800

tatctcttta tttaccaatt gagccattta atttttaaat gtttatatta gtaagataac

```
cattettaca atgggaactt tttatetatt ttetettgat agtatttata gtataaacæ
                                                                   1860
                                                                     1920
gttttattat tgagagtgta aattatacaa gtatttacac ataaaaaagt tcatataatt
                                                                     1980
qaqqtaaata taatttagaa ctgtttcttt aatgctttgt tttttgctca ctttttgctg
qaatatcact gaagctgtga tcaggggatt ataacacata tcaagatcaa gtgaacacta
                                                                     2040
                                                                    2100
catgaaatat tgtaagaaac acataactaa agactttagt tttgaattaa gtgttataac
ttcttaccaa gttttggtaa aaaatcctac attatcttta ctgtttcact ttaggattca
                                                                     2160
atcaagaaaa ttatatactt ataaatattg atctaaaaaag ttaacaacaa acccaatgtc
                                                                     2220
gccattttaa agtttaagct taacttttct tcacttacat atttagtata tg#ttttat
                                                                    2280
ttttccgctt gaaagcttat agctcttagg agaaaaccat cctttaaatt gtgactactc
                                                                     2340
                                                                     2400
attttttctg tttgtattgt ctttagtata ataaaaagtt actatcttta taaaaaaaaa
                                                                     2409
aaaaaaaa
<210> 459
<211> 876
<212> DNA
<213> Homo sapiens
<400> 459
                                                                       60
caggtaccgg tccggaattc ccgggtcgac ccacgcgtcc gcttcgacga cgacacctgc
araagtgcgg acccgccatg ccgcgccacc tctcgggact gctcctgctg ctctggccgc
                                                                      120
tgctgctgct gctgccgccg accccggccg ccccggccc cctggcccgc ccggtttgc
                                                                     180
                                                                      240
ggaggctggg cacgcggggc ccagggggyw ktcccgkkcg ccgccctgkc tctgctgtcc
ccaccegege geoctattee ggggeeggee ageeeggegg kgeeegagge geaggtgttt
                                                                      300
gcaggagcag gcccttggat ttggtgttca tcatcgatag ttcccgcagt gtgcggcccc
                                                                      360
tggagttcac caaagtgaag acctttgtct cccagataat tgacactctg gacattgggg
                                                                      420
cggcagatac acgggtggca gtggtgaact atgctagcac cgtgaagatt garttccawc
                                                                      480
                                                                      540
tccagaccca ctcagataaa cagtccttga aacaggctgt ggctcggatc acacccctgt
                                                                     600
ctacaggcac catgtccggc ctggctatcc agacagcaat ggatgargc ttcacggtgg
                                                                      660
aggcaggage tegggggeee acttycaaca teectaaggt ggccateate gtgacagatg
                                                                      720
ggaggcccca ggaccaggtg aatgargtgg cggctcgggc ccgggcatct ggtattgaac
                                                                      780
tctacgccgt gggcgtggac csggcaraca tggagtccct tcaagatgaa tggccagcga
agcccctaga œagcacgtt ttctatgtgg agacctacgg ggtyattgag aaaccttcct
                                                                      840
ytagattcca ggaaaccctt ttgcgctctt ggaacc
                                                                      876
<210> 460
<211> 1586
<212> DNA
<213> Homo sapiens
<400> 460
tttattatac taaagmcaat acaamcagaa aaaatgagta gtcacaatt aaaggatggt
                                                                      60
tttctcctaa gagctataag ctttcaagcg gaaaaataaa atacatatac taaatatgta
                                                                      120
agtgaagaaa agttaagctt aaactttaaa atggcgacat tgggtttgtt gttaactttt
                                                                      180
tagatcaata tttataagta tataattttc ttgattgaat cctaaagtga aacagtaaag
                                                                      240
                                                                      300
ataatqtaqq attttttacc aaaacttqqt aaqaaqttat aacacttaat tcaaaactaa
agtetttagt tatgtgttte ttacaatatt teatgtagtg tteaettgat ettgatatgt
                                                                      360
gttataatcc cctgatcaca gcttcagtga tattccagca aaaagtgagc aaaaarcaaa
                                                                      420
gcattaaaga aacagttcta aattatattt acctcaatta atgaacttt tttatgtgta
                                                                     480
                                                                      540
aatacttgta taatttacac tctcaataat aaaactggtt tatactataa atactatcaa
gagaaaatag ataaaaagtt cccattgtaa gaatggttat cttactaata taaacattta
                                                                      600
aaaattaaat ggctcaattg gtaaataaag agataccaaa cttttcattc tattccccat
                                                                      660
                                                                      720
gaatcatttc acagtcatag cttagagaca ctaaagtttg ctcttaagga tgtgaacgtt
                                                                      780
tatgtcctac tgattctcta gaagatcctc atactactta tccagtaata ttaaagcatt
tgcaatggca aattattagc aggaacattg aagtatgcaa aaatattaaa tagaccaagc
                                                                      840
tctccgtata tccaggtgaa aaatctgagt aattcæcga tgtatttgtc catacgcatc
                                                                     900
                                                                      960
tgcttgcaac ttgcccaaaa tatcatcgag tttggcattc agtctctgca gatatgagct
                                                                     1020
ggccctctcc tggaaggcca gggtggcttc acacccacaa gcatcttctg tagagacgag
```

```
1080
tcttcgtgct tcttcaatgg ctgcgcacgt cctccggtct tcggtcaggg tgtagccggg
gaaacaatcg cagygatagg ccgcgggccc gtcgtccaca cacaggtgct ggcagccgtg
                                                                   1140
                                                                   1200
cgagccmmca gcacactcgc tgcgaactga acacgttttg ttgtcagcat tcagagtrka
assctcgtag matwmacagt gatgggaccc atctctgtca tttacacaaa tgtgctggca
                                                                   1260
gmcatgtgta ccaaaggcac attggtcttgagccgaacaa gtcttcctgt cttggttcag
                                                                  1320
                                                                   1380
ggtgtaacct tcgtagcact cacagtggta agagccagtt ctgtcgttca cacagatgtg
ttcacaaccg tgagtgttca gagcacactt atcgatagct gaacacgtct tctgatcggc
                                                                   1440
gttcaaggag tagccttggc tgcactcaca gtggtgcttg ccttccccat cactgacacm 1500
cacqtqctgg caccqgtgtg tgccaarcac acacqggwcc agagcgcaaa aggtttcctg
                                                                   1560
                                                                   1586
gaatctagag gagagtttgg caattt
<210> 461
<211> 1011
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (2)..(2)
<223> n equals a,t,g, or c
<400> 461
60
ttgcagctta aaagcatttt attaagcatt tttggatgtt gcttcctacc acttaagaat
                                                                    120
aaaaaatgca ttttaataaa aacaaatcta tactgaagtc attttccttt gtgagaggaa
                                                                  180
                                                                    240
atatgaatga aatacattca tacttaaaaa cagagtattt tactgccaaa actttaaata
                                                                    300
tctcaagagc ataccacatt ttaaacacat tatggtcatg tagctatttc aatattcctg
ggagtggtgg gcaattagcc tgtctatggc ttaggatctg tttccatgct tgcttcctga
                                                                    360
gcttcttcta cctctgagag tttttcatca ttttccaatg tttgctgaag ttcatggatg
                                                                    420
                                                                    480
gtactaagaa gaacatgaaa ctgtttccgt ctcaattcca gcttatcttc aacactttct
                                                                    540
ttaatgtgtg aaagatgctc taattctttt cccagagcct ctagttcctt taatgtctca
                                                                   600
tgcctgtctg gatggtgctg aatcactttt gccaaagcat catattcttg gcgattttt
cgtattcgtt ttgcttgaag aatttgcttt ttgcactcag caattttttc atgtgctcca
                                                                    660
qctatgctac attctatttc cttgtaaatt ttttcataat tttccatttc tctgagattc
                                                                    720
atatcatata ctagtaaagt tttgcccatt gaaaattcac attgagacag cgtgctcagc
                                                                    780
atacgttggt actggctata tccctcttcc tgggacccag agttgcacca tttaatgaaa
                                                                    840
ctcttcacta gcagattaat tctccgatca tctccagcac catctccatc aatgaggaga
                                                                    900
                                                                    960
cgcttccgta taattcgtcg tcagtcacgg ctcccatggc gtgcgcggcg gcggcggcgg
                                                                  1011
gcaagctgag gcggcggttg gcggcggcgg cggaggtcaa actcccacaat
<210> 462
<211> 427
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (230)..(230)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (290)..(290)
<223> n equals a,t,g, or c
<220>
<221> misc feature
```

```
<222> (338)..(338)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (381)..(381)
<223> n equals a,t,g, or c
<400> 462
                                                                     60
tcgacccacg cgtccgcgga cgcgtgggcg gacgcgtggg cgcggcctcc cggcgctcgg
ctccgacccc gccgccgcca ccatgcagcc ccccagcctgctgctcgtctcg tcctcgggct
                                                                   120
                                                                    180
gctcgctgcg cccgccgccg cgctcgtccg aatcccgctg cacaagttca cctctgtgcg
                                                                    240
ccggaccatg tcggagttgg ggggccccgt ggaggatctg atcgccagan gccccatttc
                                                                    300
aaaatacgcc cagggggtgc ccagtgtggc ggggggtccc gttccggagn tgctcaagga
                                                                    360
aactacatgg aacgcgcaaa tactacgggg aaaattcngg catccgggaa cgccccccg
                                                                    420
caaattgctt ccacccgtcc ntccttttga aaaacggggt tccttcccaa ccttgttggg
                                                                    427
ttccccc
<210> 463
<211> 1500
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (8)..(9)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (417)..(417)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1431)..(1432)
<223> n equals a,t,g, or c
<400> 463
                                                                     60
tggttttnnt ttttttttt gaggcccaga cgactgtatt tccacgttca cttcggctcc
                                                                     120
tggtcactca agaggggaaa agctcacaga aggtggcacc agccccccc tccccttctt
                                                                    180
ccccaacccg gcaccagcaa atgccctcct agatggggtc aagccccagg aggaccccaa
                                                                    240
aggcatcaca aggctgcctt ttgtcccga gtcccgaccc ttccaagccc ttcctgcttg
                                                                     300
tccttgggcc tcggcgggtc ccttccacga tgggccacac gggaagacag gccagcagtg
                                                                     360
gggtgggggc tcagtccaga agtcctgcct gggcagccag gcccccgaag cacgggntg
                                                                   420
ggggggggg gggaactacc tgggccgggg gagggggtcc cgcgtgcaag acgatgggcg
                                                                     480
gccgagccag gctggggctt cccagtcagt gacgtggctc cagactcggg gtcagcctag
                                                                     540
tggctgctgc cccgcacccc gccctctact agacagacag acacaccaag gccggggaaa
                                                                     600
ccacagaaca aaacggcagc œgacagccc ggcgcctgca gagctgggct ttgagtgtga
                                                                    660
                                                                     720
gtctgagcgt gagtgtgtgc ggcaggggtg gccgggaggg cggggcggcc agcctcctcc
                                                                     780
tgccggaccc cgtcctcccc agcgggcggg cagctagagc ctggtggcct cggccaggcc
                                                                    840
cacgcggttc tggtcccggt cgaacacggt gtagtagcgg ccgatgaaga cgcccccag
gatccagagc ggcccgccgg gcggggggat gtccatgccc atgaagccgc tcaagcagat
                                                                     900
                                                                     960
ggacttcccg ccctgcgaca ccttgagcgt gtagtcctct gacgacagct tgtagggttt
gccgcccagc gtcagggtga cctcgggcaa ggtggacacc ttctcacagg ggatcatgta
                                                                    1020
ctcgccctgr atcarcggca cggccccgat ggccttctgc agctcgcgca cctcgtccac
                                                                   1080
```

```
ggggcccacg atgagcgagg tgcccgtgtc cacgatggcc tcgcagcccc ccttgcacag
                                                                     1140
                                                                     1200
ggtcaggctg ctgcccacgt ccacctgttc catgtggacc tgccagtacg ccttgcgggt
                                                                    1260
cacgttgagg taggacaggg gacccttgta gtacttggag tctgtgcgc ccagcatgag
                                                                     1320
ctcacccca ggctgcgcgc cggggtccct gttcaggtag aaagagaaga tgttcttctc
                                                                     1380
caccagette tgctgcatca ggttatcaaa gwcgggaage acattgttga ccgagatgcg
                                                                     1440
ggggtaggcc atgcccagga tgccgtcgaa cttggccgcg atgaaggtga nncccggctg
cttggtggct tccccgaacg tctgcctctc caccttgacg ccagccaggc tcgacagacc
                                                                     1500
<210> 464
<211> 1234
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1058)..(1058)
<223> n equals a,t,g, or c
<400> 464
                                                                       60
cgccggccgc gcccacgtga ycggtccggg tgcaaacacg gggtcagct gatccggccc
aactgcggcg tcatcccggc tataagcgca cggcctcggc gaccctctcc gacccggccg
                                                                      120
                                                                      180
ccqccqccat gcagccctcc agccttctgc cgctcgccct ctgcctgctg gctgcacccg
cctccgcgct cgtcaggatc ccgctgcaca agttcacgtc catccgccgg accatgtcgg
                                                                      240
aggttggggg ctctgtggag gacctgattg ccaaaggccc cgtctcaaag tactcccagg
                                                                      300
                                                                       360
cggtgccagc cgtgaccgag gggcccattc ccgaggtgct caagaactac atggacgccc
                                                                       420
agtactacgg ggagattggc atcgggacgc cccccagtg cttcacagtc gtcttcgaca
                                                                      480
cgggctcctc caacctgtgg gtcccctcca tccactgcaa actgctggac atcgcttgct
                                                                       540
ggatccacca caagtacaac agcgacaagt ccagcaccta cgtgaagaat ggtacctcgt
                                                                       600
ttgacatcca ctatggctcg ggcagcctct ccgggtacct gagccaggac actgtgtcgg
                                                                       660
tgccctgcca gtcagcgtcg tcagcctctg ccctgggcgg tgtcaaagtg gagaggcagg
tctttgggga ggccaccaag cagccaggca tcaccttcat cgcagccaag ttcgatggca
                                                                       720
tcctgggcat ggcctacccc cgcatctccg tcaacaacgt gctgcccgtc ttcgacaacc
                                                                       780
tgatgcagca gaagctggtg gaccagaaca tcttctcctt ctacctgagc agggacccag
                                                                       840
atgcgcagcc tgggggtgag ctgatgctgggtggcacaga ctccaagtat tacaagggtt
                                                                      900
                                                                       960
ctctgtccta cctgaatgtc acccgcaagg cctactggca ggtccacctg gaccaggtgg
                                                                      1020
aggtggccag cgggctgacc ctgtgcaagg agggctgtga ggccattgtg gacacaggca
cttccctcat ggtgggcccg gtggatgagg tgcgcganct gcagaaggcc atcggggccg 1080
                                                                      1140
tgccgctgat tcagggcgag tacatgatcc cctgtgagaa ggtgtccacc ctgcccgcga
tcacactgaa gctgggaggc aaaggctaca agctgtcccc agaggactac acgctcaagg
                                                                      1200
                                                                      1234
tgtcgcaggc cgggaagacc ytctgcctga gcgg
<210> 465
<211> 1395
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1338)..(1338)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1382)..(1384)
<223> n equals a,t,g, or c
<220>
```

```
<221> misc feature
<222> (1390)..(1390)
<223> n equals a,t,g, or c
<400> 465
                                                                     60
tcgacccacg cgtccgggag ccatggcgcc gtccgggccg ctgctgctgg tgctgctcgt
                                                                    120
gccgctggcc gccgcgggc cgggccctac ttccgtcccg gccggggctg ccgcctgccc
                                                                    180
ctgcgggggg accagctgtc ggggctgggg cgcaggacct acccccggcc gcacgagtac
ctgtccccat ctgacctgcc caagagctgg gactggcgca acgtgaacgg ggtcaactat
                                                                    240
                                                                    300
gccagtgcca ccaggaacca gcatatcccc cagtactgtg gctcctgctg ggcccacggc
agcaccagtg ccatggcgga ccggatcaac atcaagagaa agggggcgtg gccctccamc
                                                                    360
                                                                   420
ctgctgtccg tgcaacamkt cytcgaytgg cgccaacgcg gytctgtga gggggcaack
                                                                    480
acctgccggt gtsgacgtac gcccatgagc amggcatccc ggacgagacc tgcaacaact
accaggctaa ggaccaggaa tgcaacaagt tcaaccagtg tggaacatgc acggaattca
                                                                    540
                                                                    600
aggagtgcca ctacatccag aactacacgc tctggaaagt gggtgactac ggctccctct
                                                                    660
ccggcaggga gaagatgatg gcggaaatct atgccaacgg ccccatcagc tgcggtatca
                                                                    720
tggccacgga gaagatggtg aactacacgg gaggcatcta cgcggagtac caggatcagg
cctacataaa ccacgtcatt tctgtggtcg gctggggcgt cagcgacggc acggagtact
                                                                    780
                                                                   840
gggttgtccg gaattcgtgg ggggaaccgt gggggagca cggctggatg aggattgtga
                                                                    900
ccagcaccta taaagacggg cagggcgcca gttacaacct cgctgtcgag gacacctgta
cgtttgggga ccccatcgtt taagggacag gtctccccag aagagcagtg ttatcgtgaa
                                                                    960
                                                                   1020
ccataatcag ggggtcctat cgctctgggc actgggttgg ttccaccatg gtctgaaggg
                                                                   1080
actggggact ggcatcaaac gtgtctgatg gctgctcgcg gccccgtgcg cccagaaggg
                                                                   1140
agaaggggcg cctgtcagca cacagcctgc cgcggcgccg gccgggagcg cgctcctggg
gaagagtctg caatgggacg gctgagagcc ccgggccggc cactgccctg cccagtgtct
                                                                   1200
qcctgqccac cgtqtgatcc gcaaggccca aacgatgtga ctgcaagctt ctctgtccct
                                                                  1260
                                                                   1320
gatttggtgt ttcctgtctg gcagctgtgg tccatgatgt ggtgcggaag cccaagcttc
                                                                   1380
tcaaagctct tacgttgnct gggattcggt gggggggagt cggggggtgg aaggagaaag
                                                                  1395
cnnnccttqn aagat
<210> 466
<211> 270
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (260)..(260)
<223> n equals a,t,g, or c
<400> 466
tgtcagcaca cagcctgccg cggcgccgcc gggagcgcgc tcctggggaa gagtctgcaa
                                                                     60
120
                                                                    180
tgtgatccgc aaggcccaaa cgatgtgact gccaagctcc tctgtccctg atttggtgtt
                                                                    240
tectgtetge agetgtggte catgatgtgg tgeggaagee caggettete aaagetetta
cgttgctggg attcggtggn ggggartcgg
                                                                   270
<210> 467
<211> 2324
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (15)..(15)
<223> n equals a,t,g, or c
```

```
<220>
<221> misc_feature
<222> (23)..(23)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (36)..(36)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (92)..(92)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (95)..(95)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (107)..(107)
<223> n equals a,t,g, or c
<400> 467
cgccaaaccc gcctnttccc cgngcgtttg ccgtcnttta aatgccagga tcgatccagc
                                                                       60
catgataaga tccattgatg agtttggcca anccncaact tagaatncag tgaaaaaaat
                                                                      120
gctttatttg tgaaatttgt gatgctattg ctttatttgt aaccmttata agctgcaata
                                                                      180
accaagttac camcamcaat tgcattcatt ttatgtttca ggttcagggg raggtgtggr
                                                                      240
aggtttttta aagcaagtaa amcctctaca aatgtggtat gsctgattat gatcatgamc
                                                                      300
agactgtgag gactgagggg cctgaaatga gccttgggac tgtgaatcta aaatacacaa
                                                                      360
mcaattagaa tcactagctc ctgtgtataa tattttcata aatcaactc agtaagcaaa
                                                                     420
actctcaagc agcaagcata tgcagytagt ttaacmcatt atacacttaa aaattttata
                                                                      480
tttaccttag agctttaaat ctctgtaggt agtttgtcca attatgtcac accacagaag
                                                                      540
taaggttcct tcacaaagat cccaagctag cttataatac gactcactat agggagagag
                                                                      600
ctatgacgtc gcatgcacgc gtaagcttgg gcccctcgag ggatcctcta gagcggccgc
                                                                      660
ccttttttt ttttttcat cttttattta tttattattt ttttttacta aggcacatga
                                                                      720
cgtagaaata ttgaggtaca aaatgcaaat ttctgcataa gatttttaag atattcattt
                                                                      780
tggaaaatga aggtgaacat catctcccag aatattcagcttttagcttg tttttcttt
                                                                     840
tggaccagtt caaccagcaa cttgtaccta gcgatacagt cttccttgct cttggacggg
                                                                      900
acacatctgg ctattttgtc ccagcggtca gaggatcccc ttgggtactg ctgcaacgcc
                                                                      960
agttccagaa gtttctgttg attttgagtc cacggctcct ctgcagaccg agctctctct
                                                                     1020
tttctcaggc tctcctcgtc gctggactcg ttttgttctg ctatgtcaaa gtccttctgc
                                                                     1080
egettggete tggaettete etetggetee ggettegetg tageeteeag eageetgget
                                                                     1140
ggcttccgcc tccgaggccg ggcatcagtg gccccggtct cctgctcacc ggagtctccc
                                                                     1200
tectgeteet ceteegetge cacecetet gegtetete getgggtgat catgteateg
                                                                    1260
ggcaaggtgg tggccgtttt gatgggcctg gaattctgaa ctgtcgattt gagttcggag
                                                                     1320
agtctaacca ttcctgggga gcaggtcact gaatccttca gttgcttggc tttggttgtc
                                                                     1380
acatctgtca cagatcgacc caattcgtgg gcaatctttt cccatcgacc tggagtccct
                                                                     1 404
cctgggaact taaccatact tcttgtcagt tggctgaggt cctcttctgt ccattcaggt
                                                                     1500
gcctgttttt tctgtgttcg gttcctgttt tccaaccaat catccatttg ttcctcaatt
                                                                     1560
tcttctatgg aagttccatg atcataagac tgaatatatg tagtttctaa aggtgtgtat
                                                                     1620
acaggaaatt caggttttgg ttttttaac ttcttctgtt tttgaagtgt ttcaagttca
                                                                    1680
gttctagtca gtgcatcttc cttttccttc aatcttgttt ctttatattt agcataaaac
                                                                     1740
tgcccagcat cctggatgag gtgaggtaat gcttttagtg taaggcaaaa ccaaatcccc
                                                                     1800
agtttgcatg gaagcaaatc atgccactgt ggtttcatca gcaatctttc attttttct 1860
```

```
gaagcaccga gttttgatac atccacactc ttgctgccag tcttttttt cttttctct
                                                                     1920
                                                                     1980
ttttttctac ttagtagttc atccagttgt ttttccaggt agattgacca aaccacagca
                                                                     2040
taatgaccca ctgtgagaat aatgaacaag agtaatgcca gctcagcatt gctcattttt
ctcacccgcc tgtagtagaa ta@ggctgt cgccaatctg gaagtccatt gatcagaata
                                                                     2100
                                                                     2160
tcatcatacc tctgccttcg ttcatcatcc tttaaaactt cataaatggc caccaattgt
                                                                     2220
ctaaactgag tttctgcatt ttcatcttta ttcttgtctg gatgtaaagt tagtgaaagc
ttacgatatg cttttctgat gtctgcagat gatgcatcct gctgcacccc gagaactgg
                                                                    2280
tagaagttga gcggacgcgt gggtcgaccc gggaattccg gacc
                                                                     2324
<210> 468
<211> 2522
<212> DNA
<213> Homo sapiens
<400> 468
                                                                       60
gccgctcgac accagcaccc cgcccagagc agtgccgctg cccaaatcct cgcaggcagc
tcatcaacgc aattgcaact coggctggag ccccggacct gcaagcctgg gtgtccgtgg
                                                                      120
gtccgtctgc ccagccatct gctggtggca cctctccctc ctgccgcctc cctcggtgaa
                                                                      180
                                                                      240
ccccaccttg cagaagtgca gctcgcccgg agcagcccag gagctcagca tgcgtccccc
aggetteagg aacttettge tgetggegte etecettete tttgetgggt tg@agetgt
                                                                     300
tecteaaage ttetegeeat etetgaggag etggeeggge geegeetgea ggetgteeeg
                                                                      360
                                                                      420
ggccgagtcg gagcgacgct gccgcgcacc tgggcagccc ccgggggccg cgctgtgcca
                                                                      480
eggeegggge egetgegact geggegtetg catetgeeac gtgactgage egggeatgtt
cttcgggccc ctgtgtgagt gccatgagtg ggtgtgcgag acctacgacg ggagcacctg
                                                                      540
tgcaggccat ggtaagtgtg actgtggcaa gtgcaagtgt gaccagggat ggtatgggga
                                                                      600
tgcttgccag tacccaacta actgtgactt gacaaagaag aaaagtaacc aaatgtgcaa
                                                                      660
                                                                    . 720
gaattcacaa gacatcatct gctctaatgc aggtacatgt cactgtgga ggtgtaagtg
                                                                      780
tgataattca gatggaagtg gacttgtgta tggtaaattt tgtgagtgtg acgatagaga
                                                                      840
atgcatagac gatgaaacag aagaaatatg tggaggccat gggaagtgtt actgtggaaa
                                                                      900
ctgctactgc aaggctggtt ggcatggaga taaatgtgaa ttccagtgcg atatcacccc
                                                                      960
ctgggaaagc aagcgaagat gcacgtctcc agatggcaaa atctgcagta gcagagggac
                                                                     1020
ttgtgtatgt ggtgaatgta cctgtcacga tgttgatccg actggggact ggggagatat
tcatggggac acctgtgaat gtgatgagag ggactgtaga gctgtctatg accgatattc
                                                                     1080
tgatgacttc tgttcaggtc atggacagtg taattgcgga agtgtgact gcaaagcagg
                                                                    1140
                                                                     1200
ctggtatggg aagaagtgtg agcacccaca gtcctgcacg ctgtcagctg aggagagcat
caggaagtgc cagggaagct cggatctgcc ttgctctggg aggggtaaat gtgaatgtgg
                                                                     1260
caaatgcacc tgctatcctc caggagatcg ccgggtgtat ggcaagactt gtgagtgtga
                                                                     1320
tgatcgccgc tgtgaagacc tcgatggtgt ggtctgtgga ggccacggca catgttcctg
                                                                     1380
tggtcgctgt gtttgtgaga gaggatggtt tggaaagctc tgccaacatc cgcggaagtg
                                                                     1440
                                                                     1500
taacatgacg gaagaacaaa gcaagaatct gtgtgaatca gcagatggca tattgtgctc
\verb|gggaagggt| | tcttgtcatt| | gtgggaagtg| | catttgtct| | gctgaagagt| | ggtatatttc| \\
                                                                    1560
tggggagttc tgtgactgtg atgacagaga ctgcgacaaa catgatggtc tcatttgtac
                                                                     1620
cagggaatgg aatatgtagc tgtggaaact gtgaatgctg ggatggatgg aatggaaatg
                                                                     1680
catgtgaaat ctggcttggc tcagaatatc cttaacaatt acatgagaga ggtctggatt
                                                                     1740
cttatttttt ctgggccatt agaacatata aatgcgaagg aaaccatgta tattcaccac
                                                                     1800
taggacaggt taaaaagacc attgtatgtt tttctatttc tgaattacga atgaaatccg
                                                                     1860
agtacctatt agaaatgagt tatgcaaatt tagatgcaaa taacattaga aaaaaaagat
                                                                     1920
tcttccataa ttaacataag tggttcctaa gagagcaat ttttccaccc aaaagtcatt
                                                                     1980
tggcaacatc tacagacaat tttgattgtc acactgggtc gggtaggaag gtatgctgca
                                                                     2040
gacatttggt gggtagaggc cagggatgct gctgagcatc ccgcagtgta caggacagcc
                                                                     2100
cccaaacaag gaattatcca gccccaaatg ccaatagggc tcagactgag aaacattgag 2160
ttatatggct attagaaatc cacattctta cacaagaaag accatattag aatctaagga
                                                                     2220
                                                                     2280
aaacatgcat attcacatta attaatcgat cagatttttc cagaattccg tatcagtcac
cattttaata tggggacaat gaagacaagc acacaggagg tagaatatca gagtggggct
                                                                     2340
                                                                     2400
ggatcaaggg caaaaactgg tcattægtc atctgacatt aaatcattta gccactaagt
tatttgtcta ctctcacttt aaactcacca aagaagattc tcttaaagaa attatgaaaa
                                                                     2460
atgtacaatt taacatttta aataaatagt gacagaagtt gtttataaaa aaaaaaaaa
                                                                     2520
```

```
2522
aa
<210> 469
<211> 585
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (570)..(570)
<223> n equals a,t,g, or c
<400> 469
                                                                       60
gcttcctgca cctggtgacg cttggcgaaa ctgaggtctc atggagaagc cccggagtat
                                                                      120
tgaggagacc ccatcttcag aacaatgga ggaagaggaa gatgacgact tggagctgtt
tggtggctat gatagtttcc ggagttataa cagcagtgtg ggcagtgaga gcagctccta
                                                                      180
                                                                      240
tctggaggag tcaagtgaag cagaaaatga ggatcgggaa gcaggggaac tgccgacctc
cccgctgcat ttgctcagcc ctgggactcc tcgctccttg gatggcagtg gtttgagcc
                                                                     300
agctgtctgt gagatgtgtg gtatcgtggg tacaagggaa gccttcttct ccaagaccaa
                                                                      360
gaggttctgc agcgtctcct gctccaggag ctactcctcc aactccaaga aagccagtat
                                                                       420
cttggctagg ttacagggaa aaccaccgac caaaaaagcc aaagtcctkc acaaggtgcc
                                                                      480
                                                                      540
tggtctkcca aaattggægc cttcctccaa tctcaaagga caggacagct ggcaratkgg
                                                                       585
acaccaacag gacaagacgc tctggtcttn ggcttcgact ggggg
<210> 470
<211> 4344
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (754)..(754)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2242)..(2242)
<223> n equals a,t,g, or c
<400> 470
                                                                        60
tgagaatcct tgtggctttg attcggagtg tctgaacagg atgctgatgt ttgagtgcca
                                                                       120
cccgcagtgt gtcccgcggg cragttctgc cagaaccagt gcttcaccaa gcgccagtac
ccagagacca agatcatcaa gacagatggc aaagggtggg gcctggtcgc caagagggac
                                                                       180
                                                                       240
atcagaaagg gagaatttgt taacgagtac gttggggagc tgatcgacga ggaggagtgc
                                                                       300
atggcgagaa tcaagcacgc acacgagaac gacatcaccc acttctacat gctcactata
gacaaggacc gtataataga cgctggcccc aaaggaaactactctcgatt tatgaatcac
                                                                      360
agctgccagc ccaactgtga gaccctcaag tggacagtga atggggacac tcgtgtgggc
                                                                       420
ctgtttgccg tctgtgacat tcctgcaggg acggagctga yttttaacta caacctcgat
                                                                       480
                                                                       540
tgtctgggca atgaaaaaac ggtctgccgg tgtggagcct ccaattgcag tggattcctc
                                                                       600
ggggatagac caaagacctc gacgaccctt tcatcagagg aaaagggcaa aaagaccaag
                                                                       660
aagaaaacga rgcggcgcag agcaaaaggg gaagggaaga ggcagtcaga ggacgagtgc
                                                                       720
ttccgctgcg gtgatggcgg gcagctggtg ctgtgtgacc gcaagttctg caccaaggcc
                                                                      780
taccacctgt cctgcctggg ccttggcaag cggncttcg ggaagtggga atgtccttgg
                                                                       840
catcattgtg acgtgtgtgg caaaccttcg acttcatttt gccacctctg ccccaattcg
 ttctgtaagg agcaccagga cgggacagcc ttcagctgca ccccggacgg gcggtcctac
                                                                       900
                                                                       960
 tgctgtgagc atgacttagg ggcggcatcg gtcagaagca ccaagactga gaagccccc
 ccagagccag ggaagccgaa ggggaagagg cggcggcgga ggggctggcg gagagtcaca
                                                                      1020
```

```
1080
qaqqqcaaat agcgccaggc ggccgcttgg ccggatccag gggcggtgca gggcggccgg
                                                                      1140
ccctgcctgc gggagagggc gagcatgaac tggcccggag gacccagctc gagccgccag
                                                                     1200
gacacagacg tacaggeete etegggaggg agegeeteee caccactgag ecateeteag
cagcgtccgc tgcgtctgca ctgatgaccg tctgagccca gctcagcgtt cctggacaaa
                                                                      1260
                                                                      1320
cagceteact ceteagegtt acegecacae ttgaatttet cegaatgtea aggtteeete
                                                                    1380
ccactctatt tttttaggtt aaagttaatt ggcatatgga atgttttaat ctcctctgaa
atgtgtagcg taggcttttc ccaagggtcg ctagaaactc gtcttcgcgt tgcccccttt
                                                                      1440
ctggctctca gcgccgtcgc cactcgggag aggctgggtg aggcccgtgt gaggactgac
                                                                      1500
cctggattcc tcgaaactgc cattgtgatc attactctgc tctttggaaa tggctgtatc
                                                                      1560
                                                                     1620
attittitgt actaatgtga attgtcctc agaaacgctt cttttccatc ctagtgagaa
                                                                      1680
gctggccctg caggtggtgg cagcaatggt gttgtaagat ttcctcccgt agttttttct
                                                                      1740
cctcatggat ttgaatgaaa tgccaataac acgtccactt tcaacgtgta gtttacgcgg
{\tt agcactttcg} \ {\tt aggcctggcc} \ {\tt gggttgggcc} \ {\tt tacttctcac} \ {\tt ctgggcctat} \ {\tt cttc} {\tt gaact}
                                                                     1800
                                                                      1860
cgctaggttc ttatcaacat ttgggggata actttgtata ttttttcat ttggcttttc
                                                                      1920
tttaccagtt tctgattttt attctcaata tatttttgct aaacctattt cacaaatcac
                                                                      1980
caccgactga agtgtgtgtt tactgatgcg gccctgagct ccatggcgaa aggagtgact
ttgcagggcg tgagaccgca gtctgcttag agcacaggaa gtgacaactt agggagcccc
                                                                      2040
                                                                      2100
gtagggcgct gcaggccccg gggaccccag cacgtgggtc taaaagagaga cggagtctag
ctctcctgcc acccagagtg gcttccatct cagcactctg tgggtctggt gatggaagat
                                                                      2160
gcagtctctg ctgatcacat gtgccctctg ccagggcacc tactgagaggtgcggtcctg
                                                                     2220
ggggtggagg cctgcctggc angtgtgsgt gcctcgtacg tgtgttatgg gcactggtct
                                                                      2280
                                                                      2340
aggccaggta tgacacccac tctyctgtga gatttcactt tagtttttaa aaggtccagt
                                                                      2400
tctacagagt gagacctatc tatctgagta ctacatatgt tttaagactt ggttcttttt
                                                                      2460
ttqaqqqatc cttqaccctq qqaagtctgg agcaccctga gaagggggca ccatgtgtgc
ctttqcccac qtqtcctqaq gggctgcttg tctgggaggg agggagagaa cattcagcag
                                                                      2520
                                                                      2580
caggtgcttt tttatggcct tttcttaaaa taacctaagg gggacacatc catcttgcag
                                                                     2640
agaagtttac agaactcccc ttgaaaactg ctgctgaggc tcctttaaa ttttctgtgg
                                                                      2700
catcttttat gccttggtaa aaactgcagt gtctttggac ctgagagtgg ctactccgtg
                                                                      2760
gttttgtgac ctgtaagcgt ggggttcagg ggtgtgtggc cctgcagggt cccacgcctc
                                                                      2820
cctgagcact gactggaagt ttcactggct ggtggctgtc ccttctccca tcagggtccc
                                                                      2880
cagcaaagtt aactacacag aggacccagg ggaaacgagc tgtgtagcca ctgacttgct
                                                                      2940
cgcgcggccg tggcctctga ggggcactcg ccggttaaga cagggtggga gtagtgcttt
ccagttcaga ctctaacttc tcccaaagtg tcctaagaaa atactggatc ggctcataga
                                                                      3000
tttatgctcc ttatgatgcc ctaacttgga aggttgtt& agggacaggc cgggcagtgt
                                                                     3060
ccccacaca accttagagt cgaaggcccc agggccccgc tgtcacttgc ccaaaagatc
                                                                      3120
                                                                      3180
ccttccqqca qqtaaqqqac taccaatqct tacqtcaaaa caqcaqaatc gqctttqcaq
tgcactttgg ggagcagata ttaacttatt tttgtgttgg acagtagtga aatcttgtga
                                                                      3240
                                                                      3300
tttttaatcg ctttgataat acttccaaat tttatgattt ttctgaagga aataatgcaa
                                                                      3360
acattttaaa tatgtttctc cccctttcca aaaactgtta aactaatgag caagtaacac
taactttgaa tgtctctaca atacccgttg ataactcagt ggagccaggc tttggggtag
                                                                      3420
cggccctgag cttgcagggt ttctcgccac tgggctgac cacgcccca gctgtgaccg
                                                                     3480
                                                                      3540
tgggtgtggc tggctctcgg ccctgcccag ctttgttctg aggacgtggt gacttcctga
                                                                      3600
acatcagett caateeteea teattaatgt gaageaaaae acaaaaaceg ceccaateee
tcaggattcc ttggcatccg aaaccagcat ctgcacctaa acccataccc acccgtgtgc
                                                                      3660
qcccacaqqq qgatgtgtcc gaatgggcag cttaaaatgt ggtcacctgt gggggaaact
                                                                      3720
                                                                      3780
cttcaggcac ctgaagtgag aacccagctg tccgtcctca ggccggcctt tcttccggcg
                                                                      3840
acaccegtee atggetgget gggteeeett egeagtgttt gtetgtettg acatetaaae
                                                                      3900
cccggcgtgt gcagtgccca tcttccagga ctaccttatt ttccagaatt aaacctgttt
tataattcaa gttaatgcaa atgactgtca gttgccaaat atcttgatcc tatgagtgta
                                                                      3960
                                                                      4020
gttgatgact gtttgttagt cagtagagta aaatgctgtg tccacggggt gtcacagcct
caccataccc tgttgaggtg tgaaatgccc cgtcagaaat taaatacaaa cttaaatgg
                                                                     4080
                                                                      4140
cctattggtg tctaaacttc atacaatgta aggtcagatt ccttttagga atactgggtg
ctgtcaccag gtttgatagt tagacttaaa aacttgaaat tcactttttg gggggaggga
                                                                      4200
                                                                      4260
tatactgaaa tagagagttg agacttgcca gttgggggaa aatagcattt aaaatggaaa
                                                                      4320
gctgtgtttg gaaaattgtg tægagtatt tttgtattaa aaacatttta aaggcttttt
                                                                      4344
tcttaaaaaa aaaaaaaaa aaaa
```

```
<210> 471
<211> 1258
<212> DNA
<213> Homo sapiens
<400> 471
aaccctcact aaagggaaca aaagctggag ctccaccgcg gtggcggccg ctggctgac
                                                                    60
ggcctaaaac taaaatgaca tttattccct agctacaaac atcagcgtta ttatgttaat
                                                                     120
tataccttgc cctctatcat tataaatggt tgccatggtg tttctaaaaa taagtgtttt
                                                                     180
accattaatg tgtagagggc aaacaaagca taaagtacta agggatcatg cttatcctag
                                                                     240
ggtctcacag aagagaggac &atttaatt aatcttgtga attacagaac aggttgtggt
                                                                    300
ccagacacca agaatcatag gggttttttt ttaaaaaaacc taatagaagt agggtgacct
                                                                     360
ctctctttgg tctaagagtt ctaaaggaag gtaggcatct gtttaattag ttggttcacc
                                                                     420
ctggctttac ctctggttaa tgcttgtgtt aataggaagg aaaaatcact tatcttttc
                                                                    480
ttccaagccc ctccctgcct gacttaccca gactgggatt accagatacc aggtgattta
                                                                     540
tgtggagatg atttttcacc tttaaactct aagccaagtg taagaaactc ttgatagcta
                                                                     600
tgtctatttt atatcagtca ctgagacttt tttttaagtt tttatttatt attaagacaa
                                                                     660
ctttgccaaa aaagtccct aagcacaact atttacattt ctttatagcc tcttctgatc
                                                                    720
tctaacacat atgcagtttt aactgttatt ttcatagtaa ctgatctttt gtctaaggat
                                                                     780
ttttacctga aagcacaatg tattgagtct cttgaaaatc atctttcaga tctttttaca
                                                                     840
gaatgaactt atgcactgct actgtagtat tctcaaggaa tatatgaaa cacaaatgta
                                                                    900
tgcctgaggt tggtttttgc agaaaacagt ctctgcttct aaaaacttct atgtctagtc
                                                                     960
ttccatagga aatcctcact gtttaaccat gtgaggagcc taagtcatta aacggatcat
                                                                    1020
gtctgtacat tgtgtaatga atgaaaagca cataaatgta atctactttg aactttgtaa
                                                                    1080
aaatgatgtg tggaggctat tcttgtttct ccatctcaag tcctgtgtgt gcacgtgtgt
                                                                   1140
gcaagtgcac atgtgtgtgt gtaataacac attgtaaaga acagaaatta ctttaaaaaa
                                                                    1200
1258
<210> 472
<211> 2527
<212> DNA
<213> Homo sapiens
<400> 472
ctcttgctac cttcccggcg cagagaaccc cggctgctca gcqcqctccq qqqtcatqqa
                                                                      60
gatccccggg agcctgtgca agaaagtcaa gctgagcaat aacgcgcaga actggggaat
                                                                     120
gcagagagca accaatgtca cctaccaagc ccatcatgtc agcaggaaca agagaggtca
                                                                     180
ggtggtgggg accagaggtg gctttcgtgg ttgcacagtt tggctaacag gcttgtctgg
                                                                    240
agcgggaaag actactgtga gcatggcctt ggaggagtac ctggtttgtc atggtattcc
                                                                     300
atgctacact ctggatggtg acaatattcg tcaaggtctc aataaaaatc ttggctttag
                                                                     360
tcctgaagac agagaagaga atgttcgacg catcgcagaagttgctaaac tgtttgcaga
                                                                    420
tgctggctta gtgtgcatca caagtttcat atcaccttac actcaggatc gcaacaatgc
                                                                     480
aaggcaaatt catgaaggtg caagtttacc gttttttgaa gtatttgttg atgctcctct
                                                                     540
gcatgtttgt gaacagaggg atgtcaaagg actctacaaa aaagcccqqq caggagaaat
                                                                     600
taaaggtttc actgggatcg attctgaata tgaaaagcca gaggcccctg agttggtgct
                                                                     660
gaaaacagac tcctgtgatg taaatgactg tgtccagcaa gttgtggaac ttctacagga
                                                                     720
acgggatatt gtacctgtgg atgcatctta tgaagtaaaa gaactatatg tgccagaaaa
                                                                     780
taaacttcat ttggcaaaaa cagatgcgga aacatacca gcactgaaaa ttaataaagt
                                                                    840
ggatatgcag tgggtgcagg ttttggcaga aggttgggca accccattga atggctttat
                                                                     900
gagagagagg gagtacttgc agtgccttca ttttgattgt cttctggatg gaggtgtcat
                                                                     960
taacttgtca gtacctatag ttctgactgc gactcatgaa gataaagaga ggctggacgg
                                                                   1020
ctgtacagca tttgctctga tgtatgaggg ccgccgtgtg gccattcttc gcaatccaga
                                                                   1080
gttttttgag cacaggaaag aggagcgctg tgccagacag tggggaacga catgcaagaa
                                                                   1140
ccacccctat attaagatgg tgatggaaca aggagattgg ctgattggag gagatcttca
                                                                   1200
agtcttggat cgagtttatt ggaatgatggtcttgatcag tatcgtctta ctcctactga
                                                                   1260
gctaaagcag aaatttaaag atatgaatgc tgatgctgtc ttttgcatttc aactacgcaa
                                                                   1320
cccagtgcac aatggacatg ccctgttaat gcaggatacc cataagcaac ttctagagag
                                                                   1380
```

```
gggctaccgg cgccctgtcc tcctcctcca ccctctgggt ggctggacaa aggatgacga
                                                                  1440
tgttcctttg atgtggcgta tgaagcagca tgctgcagtg ttggaggaag gagttctgaa
                                                                    1560
tcctgagacg acagtggtgg ccatcttccc atctcccatg atgtatgctg gaccaactga
ggtccagtgg cattgcagag cacggatggt tgcaggagcc aacttttaca ttgttggacg
                                                                    1620
                                                                    1680
agaccctgct ggcatgcctc atc@gaaac agggaaggat ctttatgagc caagtcatgg
                                                                    1740
tgccaaagtg ctgacgatgg cccctggttt aatcactttg gaaatagttc cctttcgagt
tgcagcttac aacaagaaaa agaagcgtat ggactactat gactctgaac accatgaaga
                                                                    1800
ctttgaattt atttcaggaa cacgaatgcg caaacttgct cgagaaggcc agaaæcacc
                                                                   1860
tgaaggtttc atggctccca aggcttggac cgtgctgaca gaatactaca aatccttgga
                                                                    1920
                                                                    1980
gaaagcttag gctgttaacc cagtcactcc acctttgaca cattactagt aacaagaggg
gaccacatag tetetgttgg catttetttg tggtgtetgt etggacatge tteetaaaaa
                                                                    2040
cagaccattt tccttaact gcatcagttt tggtctgcct tatgagttct gttttgaaca
                                                                    2100
agtgtaacac actgatggtt ttaatgtatc ttttccactt attatagtta tattcctaca
                                                                    2160
atacaatttt aaaattgtct ttttatatta tatttatgct tctgtgtcat gattttttca
                                                                    2220
agctgttata ttagttgtaa ccagtagtat tcacattaaa tcttgctttttttcccctta
                                                                   2280
aaaaaagaaa aaaattacca aacaataaac ttggctagac cttgttttga ggattttaca
                                                                    2340
agacctttgt agcgattaga ttttttttct acattgaaaa tagaaactgc ttcctttctt
                                                                    2400
ctttccagtc agctattggt ctttccagct gttataatct aaagtattct tatgatctgt
                                                                    2460
gtaagctctg aatgaacttc tttactcaat aaaattaatt ttttggcttc ttaaaaaaaa
                                                                    2520
                                                                    2527
aaaaaaa
<210> 473
<211> 2361
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
\langle 222 \rangle (189\overline{1})...(1891)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2356)..(2356)
<223> n equals a,t,g, or c
<400> 473
ggcacgagct cgagtttttt ttttttttt tttctatttt tgccagactc ttgatactct
                                                                      60
120
atgaaaaaac gcactgacat tttttttat ttaatatagc ctggacttta cctgcgtatg
                                                                     180
cacatgctca gaattgtcta ctaggctgac tatgtatcac ctcttcagct tggatccaat
                                                                     240
tgtggattta tttacaaaca tcaaatgcct tcaagccaat cctttttgct gtatgttttg
                                                                     300
cagcctactg tagtagatac gcaacagata wtgtgggaaa aaaagagata agaggaggaa
                                                                    360
gctaataaga gactgtcaag attgtatacc ttcttggttt cttttaagaa tttgttgcct
                                                                     420
ttctactatt acagcaaagc agcattttgt tactgactgc ctaaaatcac ttaatctcag
                                                                     480
gtgaacgcat cacttgccaa actgttggaa tgctatttgt gttttgttgc actgttttt
                                                                     504
tcgtttgttt gtttgtttat ttggttggct ttttggagag ggaaatttgg aaacgggaca
                                                                     600
tacacaaaag ttacacaccc acattccctt tttatcatga catacaagaa gaaactagca
                                                                     660
gagctaagaa tggagtgaag aaaggcagta tggcaggcac cagcaaagag ttgagggctg
                                                                     720
ttgctcttaa aaattatttt ttttattatt attttgaaag tatggaagtt ttccattcac
                                                                    780
tggggaaagg agggaaaagt gcatttattt ttatacagag ttacttaatt acctccaaaa
                                                                     840
cacatatgtt ggaaatcgct tttgctggtg caaagtatat taatgagcag gaatacatac
                                                                     900
                                                                    960
attgaggtta tgaatagaga gctcaatttg tacctttgct gtcttgctca agcttggtat
ggcatgaaaa ctcgacttta ttccaaaagt aacttcaaaa tttaaaaatac tagaacgttt
                                                                    1020
gctgcgataa atcttttgga tttttgtgtt tttctaatga gaatactgtt tttcattacc
                                                                    1080
taaagaacaa tttgctaaac atgagaaatc actcactttg attatgtata gattacatag
                                                                    1140
gaagaacaat cacatcagta agttatagtt tatattaaag gtaattttct gttggctcat
                                                                    1200
```

```
aacaaatata ccagcattca tgatagcatt tcagcatttt ccaaggtacc aagtgtactt
                                                                   1260
attttgttgt tgttgttgtt gttgtatttt agaaggaatt cagctctgat gtttttaaag
                                                                   1320
aaaaccagca tctctgatgt tgcaacatac gtgtaaaatg ggtgttacat ctacctgcc
                                                                 1380
atttaacccc acagttaata aagtggctga aaataatagt agctctggct tggtgcttga
                                                                   1440
cctggttaaa tactgtctta aagctcatac aaaacaaata ggcttttcca taagtggcct
                                                                   1500
ttaagaaaac atggaagaca attcatgttt gacaaatgct gacagggtga agaaagccca
                                                                   1560
gtgtaaaaat gaatcgcgtt ttaagtgatt cggttaaaga gtttgggctc ccgtagcaaa
                                                                  1620
ctaatactag ataataagga aatgggggtg aaatattttt ttattgttga atcattttgt
                                                                   1680
gaatgtcccc ctcaaaaaaa gctaatggaa tatttggcat aaagggcatt tggtqgtttt
                                                                   1740
attittgttt gagggggwtt gtcagaaaat cccttttctc tcttacqyt aactgactag
                                                                  1800
ggaacaattg ttgatatgca tagcattggg aatacttgtc attatatact cttacaaata
                                                                   1860
acacatgaag caagaatgac caatattctg nataattggg cactgggatc acaaaatgtg
                                                                   1920
ataaaacttt aaatgtataa aactttatca aataaagttt tattttcccc tttaaaatgt
                                                                   1980
atttctttag aggcattact tttttaaaaa tattggtcaa ttcctgacat aagatgtgag
                                                                  2040
gttcacagtt gtattccagt attcaagata gattcctgat ttttcaatta ggaaaagtaa
                                                                   2100
aatccaaaat gttagcaaaa caaagtgcaa tattaaatgt ttgctttata gattatattc.
                                                                  2160
tatggctgtt tgtaatttct cttttttcc ttttttattt ggtctgaat atgtccttgt
                                                                  2220
aggctctgtt ttaagaaaac aatatgtggg aaatgattta atttttccta ttgctcttcc
                                                                   2280
2340
aaaaaaaaa aagaangaga a
                                                                   2361
<210> 474
<211> 1739
<212> DNA
<213> Homo sapiens
<400> 474
ggcacgagag atcctcagga tatctttagc caaaggaaaa gctccgcatt cccacctggg
                                                                     60
gggaaagctg gattgccatg ggcacgaata gtggtgcaga gtccctggcc atcctgaata
                                                                    120
tccagaatgg tgtttctgaa gttcttctgc atgagtttct tcgccacct gtgtcaaggc
                                                                   180
tacttcgatg gccccctcta cccagagatg tccaatggga ctctgcacca ctacttcgtg
                                                                    240
eccgatgggg actatgagga gaacgatgac eccgagaagt gecagetget etteagggtg
                                                                    300
agtgaccaca ggcgctgctc ccagggggag gggagccagg ttggcagcct gctgagcctc
                                                                    360
accetgeggg aggagtteae egtgetggge caceaggtgg aaggatgetg ggegegtget
                                                                   420
ggagggcatc agcaaaagca tctcctacga cctagacggg gaagagagct atggcaagta
                                                                    480
cctgcggcgg gagtcccacc agatcggggg atgcctactc caactcggac aaatccctca
                                                                    540
ctgagctgga gagcaagttc aagcagggcc aggaacagga cagccggcag gagagcaggc
                                                                   600
tcaacgagga ctttctggga atgctggtcc acaccaggtc cctgctgaag gagacactgg
                                                                    660
acatetetgt ggggeteagg gacaaataeg agetgetgge ceteaceatt aggaceatgg
                                                                   720
gacccgacta gtcggctgaa aaatgattat cttaaagtat aggtggaagg atacaaatgc
                                                                   780
ttagaaagag ggaatcaaat cagccccgtt ttggaaggtg ggggacagaa aatggggcta
                                                                   840
catttccccc atacctacta tttttttata tcccgatttg cactttgaga atacatctaa
                                                                    900
960
tgaacattat ttatgtgatt gttatggaat tgtcacctgg aaagaacaat tttaagcaat
                                                                  1020
gtcatttcta gatgggtttc taattctgca gagacacccg tttcagccac atctaaaaga
                                                                  1080
gcacagttta tgtggtgcgg aattaaactt ccccatcctg cagattatgt ggaaataccc
                                                                  1140
aaagataata gtgcatagct cctttcagcc tctagccttc actcctgggc tccaaaagct
                                                                 1200
atcccagttg cctgtttttc aaatgaggtt caaggtgctg ctttgcatgc ctgccaaccc
                                                                  1260
atggaagttg tttcttactt cttttctctc ttatttatta accatggtct gagagttgtt
                                                                  1320
tttgttctat gtaacagtat tgccacaaaa ctataggcaa atcgtgtttg cagggagatt
                                                                  1380
tctgatgcct ctgtgggtgt gtgtaægtta aagtggccac atttaagaag gccaagcttt
                                                                  1440
gtagtggttg cacagtcaca ctgatatgct gatttgctct ttctcattgt atgtctatgc
                                                                  1500
tttgtcatca gtgctatagt aaattacaaa gaaataggta gattgtatga acatacccac
                                                                  1560
aaatgcctat gatttaggtt accaatgtat tettteteat ttggggtttt gettetbet
                                                                 1620
gtctgtttat tggaaacttg tacttcaagt agggggaatc ctaattctaa taactcctta
                                                                  1680
```

1739

```
<210> 475
<211> 438
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (61)..(61)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (351)..(351)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (436)..(436)
<223> n equals a,t,g, or c
<400> 475
                                                                       60
ggtcactcct aatgtaggat gggacgattg ccccaagctc tgtcgtgagtggttgattga
nggttttctt aagggaacaa tgctgggaaa gatgataggc gcccgccact gacccctccc
                                                                      120
                                                                      180
qcctccctqc ccctccaqta aactcccaca caaaatagca gtatgaggtg tggggaaata
atcttggcct ccgtcctggg tttacttttg actctgccac ctacaagctg tcacctgaac
                                                                      240
                                                                      300
aagtcctttc cgttcctgtg tcttccctgg tcacaagctc taagcctgaa cccacactct
                                                                      360
gggaatgaag cagggtagcg gcctctgctt cagcaactct gaggggtcta ncttgggtgg
                                                                      420
qqaqttqqcc tcatccaqaa qqctqctqga aggccaaqac aaggctctgg tggggaagtg
                                                                      438
ttctgagaag ggattnct
<210> 476
<211> 538
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (462)..(462)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (498)..(498)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (520)..(520)
<223> n equals a,t,g, or c
<400> 476
                                                                        60
gcttgtaggt actcattgag gtttattgtg taagatgaat gaatgttgca aattcctaaa
catgtgattc agatgcccaa tcttactctg ttactttatg aaaatttttt aaagctatat
                                                                       120
gatgttatat caaaatatgt tgttatactt taggatætc ggtgtgttag ccctgaattt
                                                                      180
                                                                       240
cagcataagt cccatttttt tccatgggag tctaggaaag ctatatgttt attcagcagc
                                                                       300
aaaatacagt ttggaactta aataaactat tgatcaattc tggtcttatg ctagaaggaa
taaagcatca agaaaaagaa aagattgctg tcaagaccag gaaaattgac aatagagtat
                                                                       360
```

```
tagaatgcag aaatgagggg aagtggaaar gccascaagt aggagagaaa aagtgcaggg
                                                                       420
acagtagaaa gtgaatgtag gagcttctga cccagcactc angaacgcaa ttcatcccta
                                                                       480
aaaagctgtt gcgtctangt tgccagtaac caattaaaan ccgtttgaag tagagtga
                                                                       538
<210> 477
<211> 1346
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (5)..(5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (17)..(17)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (21)..(21)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (36)..(36)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (107)..(107)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (150)..(150)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (323)..(323)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1307)..(1307)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1337)..(1337)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1341)..(1341)
```

```
<223> n equals a,t,q, or c
<221> misc_feature
<222> (1343)..(1343)
<223> n equals a,t,g, or c
<400> 477
tcccntcaag gccgggnggc ntgttcttgg cctttncaac ttttgccttt ccactattta
                                                                        60
gaatgcaggt gtgtctgtcc tgcaacccag cttctggctc tggaaancca gctgcatcac
                                                                      210
ccatgtgcct ggaccttctc cagaccatgn aggcccaggc gagtgactca ctgccattca
                                                                      180
gtctccatct ttgggcagat ccaccatgag acataacttc ccagaaatcc agttacaagg
                                                                       240
aggaataagt attgaagact taagaaatgc attttgcagc aggtcctcgc tgtactgggg
                                                                      300
cagcggtcca ttcatagagc ccngctagaa tagaggtcac aagctcagaa gcttctctaa
                                                                      360
ggcaggcagg aaatttaagt cgatactatg atctgcattg tgggctggaa tgaacggaag
                                                                      420
gtgcctagtc taaacagctg cttgttgctc agctgttgtt gccgtattgg gaattcaagc
                                                                       480
ctaatgatgt ttggtattcc cattttcaaa agaagtcagg aaatgcagat ttctatgtma
                                                                     540
atttttaaaa cttctgaact gtgtatgagc catacaaaat acatttgcag gccagtcgac
                                                                       600
atcctctgat ccagaatatc aatttgtgag acaagttgtt ggtgaggcag cattmcatag
                                                                       660
tagttaaaag catacatttt agagccagac tgcccatgtc caaaccctgg tcccatcact
                                                                      720
cactmcctty catttcactt ctctttgctt cactttcctc atcagtaaaa taaaaataat
                                                                      780
atcagtacct acctcatagg gtttcatgag cattaaataa attaaaaccc ataaagtact
                                                                      840
ttcaatgcta tcaggcattt agttacatgg taaataagtg tttaaaacat ttaaaacaaa
                                                                      900
agttcaaaga taataarcaa ggaaacagaa aacctgacag gccagctttg gaacttctt
                                                                     960
gatggcagat ctatcaacat ttctcccttt ggctgggatg aaaaggcatt tgggaataaa
                                                                     1020
agatcccata aaaataaatg agaagaagtg aaacaccttc attatggcaa ttttggtgtc
                                                                     1080
agagcctaaa agacagaggg atcaaaatat tgcagtacta aaatctgatg gtttcatgta
                                                                     1140
gaaatgagat ttaagcttat taaaatgtat ttctttctgg tgttaataac ccttcacaag
                                                                     1200
acctgggcaa ttttgaaaga aggaaagaaa atggttctcc ctgtggacaa raagaaacaa
                                                                     1260
atgactatta aattttctaa tttggagtga actagggkgr ttccccnagt ttatgtggga
                                                                     1320
aggtttcagt gagggtngta ngngaa
                                                                    1346
<210> 478
<211> 912
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (36)..(36)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (93)..(93)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (158)..(158)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (592)..(592)
<223> n equals a,t,g, or c
```

```
<400> 478
                                                                        60
aaaatggttc tccctgtggc aagaagaacc aaatgnctat taaattttct aatttggagt
                                                                      120
gaactaagtt gatccctagg tttttgtggg agnccggggtgggggagtcc agtggaaagc
aattgctgga gagtagtcct tgttctttgc tgacaganca ggagcagagt gtggaatgaa
                                                                       180
aactcaatag cctcctctat tctcaagaga caattgactt ccatctgttt aaacctcccc
                                                                       240
                                                                       300
aggggaccct gctccccca tttccattta ctctcctttc caccaaccta gggtgacatt
aagaaaacca aacccatttg aaacacaagc tcttacacat caaaagtcag gggagaagtc
                                                                       360
tggttgacct gtaagccact gcatgaggca caaagatgca aaaaggaact ttcaggaaca
                                                                       420
actgctgctc cgaggactct atgtcagata taacatccgc tttggcccaa aagtaggctt
                                                                       480
gagccccaga agaggaggaa tgtcmagtat gtttmaaatg tgaaaccttt agttatactt
                                                                      540
qctctttact cagaaaggag agagtattcc cttatgccaa cgaggtctct gngagttgtt
                                                                       600
                                                                       660
tqcactattg gtagcaggtg ctgcctgggg tagctcttat ggtctgtgct tgaagtgtgc
accagetget geeetggaca tgactgttgg teeetgeata caageageea eetttaaaca
                                                                       720
                                                                       780
gatcaaatga ctcttatgat gacagctgtc tcactrtact ttcaaactgg ttttaatttg
gttacttgca acctaagaca gcaracagca ttttagggat gaattgcgtt cctgaagtgc
                                                                       840
atgggtcaga aagctcmtac attcacttty tactgtccct gcactttttc tatcctactt
                                                                       900
gctgcccttc ca
                                                                      912
<210> 479
<211> 1177
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1095)..(1095)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1115)..(1115)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1142)..(1142)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
\langle 222 \rangle (116\overline{2})...(1162)
<223> n equals a,t,g, or c
<400> 479
                                                                        60
agccaccatg cccggcctag attaaaaatt tgaagacata ttctctacta tgagccaatg
aaattactca ttttgtttct atcccatttg ctgtcccttg cttttggaat tttgtgtctt
                                                                       120
agtgtgactg tgattctttc tctccttttg tctttcagca aacggggatt cagcgtccga
                                                                       180
tcctttggaa cagggactca cgtgaagctt ccaggaccag ctcccgacaa gcccaatgtt
                                                                       240
                                                                      300
tatgatttca aaaccacata tgaccagatg tacaatgatc tcttaggaa agacaaagaa
ctctatacac agaatgggat tttacatatg ctggacagaa ataagagaat caagccccgg
                                                                       360
                                                                       420
ccagaaagat tccagaactg caaagacctg tttgatctga tcctcacttg cgaagagaga
                                                                       480
gtgtatgacc aggtggtgga agatctgaat tccagagaac aggagacctg ccagccygtg
                                                                       540
cacgtggtca atgtggacat ccaggacaac cacgaggagg ccaccctggg ggcgtttctc
atctgtgagc tctgccagtg tatccagcac acggaagaca tggagaacga gatcgacgag
                                                                       600
ctgctgcagg agttcgagga gaagagtggc cgcacctttc tgcacaccgt ctgcttctac
                                                                       660
                                                                      720
tgagcccagc gcccgcatgg agccgcctct ggagctcct gttgttcata ctttttcctt
cctgacattt gtttttactt acaggtgttc tgctggtgac ggtagcatta cccaaataaa
                                                                       780
```

```
840
ctgtgcatat gaaatgggag aggagatgcc aaaacgccag atgaaagcaa tcaagtttct
                                                                   900
tcttttccac ttttacttat qaqcrggata ttgattacaa agtttttctt ctttaaccaa
                                                                   960
aaaqqaaaga caacggtttg tgtgcacttc ccgacatacc tgtgtcttcg tgtgcctgcc
                                                                  1020
ttccctcct cctcccacc gggccggact gtacagagcc ctgctgcggc gtgttaggaa
                                                                  1080
1140
aaaaaaaaa raaancaaaa aaaaaaaaaaaaaggnggggc cgaaggtttt ttccctttgg
                                                                  1177
tnggggttat ttttggcttg gnattggcct tcgtttt
<210> 480
<211> 1775
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (820)..(820)
<223> n equals a,t,g, or c
<400> 480
gcggcgcggg tgggggttgt gcgttttacg caggctgtgg cagcgacgcg gtccccagcc
                                                                    60
tgggtaaaga tggccccatg gcccccgaag ggcctagtcc cagctgtgct ctggggcctc
                                                                    120
                                                                   180
agectettee teaaceteee aggacetate tggeteeage ceteteeace teeceagtet
                                                                   240
tctccccgc ctcagcccca tccgtgtat acctgccggg gactggttga cagctttaac
aagggcctgg agagaaccat ccgggacaac tttggaggtg gaaacactgc ctgggaggaa
                                                                    300
                                                                    360
gagaatttgt ccaaatacaa agacagtgag acccgcctgg tagaggtgct ggagggtgtg
                                                                  420
tqcaqcaaqt caqacttcga gtgccaccgc ctgctggagc tgagtgagga gctggtgagg
agctggtggt ttcacaagca gcaggaggcc ccggacctct tccagtggct gtgctcagat
                                                                    480
tecetgaage tetgetgeee egeaggeace ttegggeeet eetgeettee etgteetggg
                                                                    540
                                                                    600
ggaacagaga ggccctgcgg tggctacggg cagtgtgaag gagaagggac acgagggggc
agcgggcact gtgactgcca ægccggctac gggggtgagg cctgtggcca gtgtggcctt
                                                                   660
ggctactttg aggcagaacg caacgccagc catctggtat gttcggcttg ttttggcccc
                                                                    720
tgtgcccgat gctcaggacc tgaggaatca aactgtttgc aatgcaagaa gggctgggcc
                                                                    780
\verb|ctgcatcacc|| teaagtgtgt|| agactgtgcc|| aaggeetgen|| taggetgeat|| g\textbf{g}ggeaggg||
                                                                  840
                                                                    900
ccaggtcgct gtaagaagtg tagccctggc tatcagcagg tgggctccaa gtgtctcgat
                                                                    960
qtqqatqaqt qtqaqacaqa qgtgtgtccg ggagagaaca agcagtgtga aaacaccgag
ggcggttatc gctgcatctg tgccgagggc tacaagcaga tggaaggcat ctgtgtgaag
                                                                   1020
gagcagatee cagagtcage aggettette teagagatga cagaagaega gttggtggtg
                                                                  1080
                                                                   1140
ctgcagcaga tgttctttgg catcatcatc tgtgcactgg ccacgctggc tgctaagggc
gacttggtgt tcaccgccat cttcattggg gctgtggcgg ccatgactgg ctactggttg
                                                                   1200
tcagagegea gtgacegtgt getggaggge tteatcaagg geagatate geggeeacea
                                                                  1260
cctqtaggac ctcctcccac ccacgctgcc cccagagctt gggctgccct cctgctggac
                                                                   1320
                                                                   1380
actcaqqaca qcttqqttta tttttgagag tggggtaagc acccctacct gccttacaga
                                                                   1440
qcaqcccaqq tacccaggcc cgggcagaca aggcccctgg ggtaaaaagt agccctgaag
                                                                  1500
gtggatacca tgagctcttc acctggcggg gactggcagg cttcacaatg tgtgaatttc
                                                                   1560
aaaagttttt ccttaatggt ggctgctaga gctttggccc ctgcttagga ttaggtggtc
                                                                   1620
ctcacagggg tggggccatc acagctccct cctgccagct gcatgctgcc agttcctgtt
                                                                  1680
ctgtgttcac cacatcccca caccccattg ccacttattt #tcatctca ggaaataaag
1740
                                                                   1775
cgtacccaat cgccctatga tgtagtcgta ttaca
<210> 481
<211> 866
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
```

```
<222> (14)..(14)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (27)..(27)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (33)..(33)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (105)..(105)
<223> n equals a,t,g, or c
<400> 481
cctggcttgc tggncaagcc ttggtgncca tgntgaacaa gttttgtgga agttctgggg
                                                                        60
agactccaag aactaccagg aacagggata cgagtgccag gctgnatctc ttgctcctct
                                                                      120
                                                                      180
gcagagtcag caggettett etcagagatg acagaagaeg agttggtggt getgeageag
                                                                      240
atgttctttg gcatcatcat ctgtgcactg gccacgctgg ctgctaaggg cgacttggtg
ttcaccgcca tcttcattgg ggctgtggcg gccatgactg gctactggtt gtcagagcgc
                                                                      300
agtgaccgtg tgctggaggg cttcatcaag ggcagataat cgcggccacc acctgtagga
                                                                      360
                                                                      420
cctcctccca cccacgctgc ccccagagcttgggctgccc tcctgctgga cactcaggac
                                                                      480
agcttggttt atttttgaga gtggggtaag cacccctacc tgccttacag agcagcccag
gtacccaggc ccgggcagac aaggcccctg gggtaaaaag tagccctgaa ggtggatacc
                                                                      540
atgagetett cacetggegg ggaetggeag getteacaat gtgtgaattt caaaagtttt
                                                                     600
                                                                      660
tecttaatgg tggetgetag agetttggee eetgettagg attaggtggt eetcacaggg
gtggggccat cacagetece teetgecage tgeatgetge eagtteetgt tetgtgttea
                                                                      720
ccacatcccc acaccccatt gccacttatt tattcatctc aggaaataaa gaaaggtctt
                                                                      780
                                                                      840
ggaaagttaa aaaaaaaaa aaaaæaaaa aaaaaaactc gaggggggc ccgtacccaa
                                                                      866
tcgccctatg atgtagtcgt attaca
<210> 482
<211> 2052
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (2045)..(2045)
<223> n equals a,t,g, or c
<400> 482
tttgcttttc aaatgctccc aaggtctcag atgaagcggt gaaaaaagat tcagagttgg
                                                                        60
ataagcactt ggaatcacgg gttgaagaga ttatggagaa gtctggcgag gaaggaatgc
                                                                       120
ctgatcttgc ccatgtcatg cgcatcttgt ctgcagaaaa tatcccaaat ttgcctcctg
                                                                       180
                                                                      240
ggggaggtct tgctggcaas cgtaatgtta ttgaagctgt ttatagtaga ctgaatccac
                                                                       300
atagagaaag tgatgggggt gctggagatc tagaagaccc atggtagcct taaaaaacctt
                                                                       360
ctaaaatgct tttrattctg aaaattgggg gaaaaaactt ttaatcacaa ttttcttcaa
                                                                      420
tacaagggga aaatattctt gcggattccc aacgttttgt gatatgagcagaaaatcatt
                                                                       480
agcatttccc atcatttgtt catatttgtg ttttctgaca gttgccactt gtagcattgc
ctgtactaca gtattttttg ccaacctcag gcatactcgt tacatctgta ttgaactttc
                                                                       540
ggccctagaa accagtggag ttatttcacc acaaatcaac aatgtgcctg aggtgcatgg
                                                                       600
gaaatatagt tagctatact ctgaaaatac attatgtttt ttttctttaa acaaaacaca
                                                                       660
```

```
720
caacatgtaa gcatgtaaga gtaaagaatt gtatgatatg ttcctttttt cagttcacca
                                                                      780
agttggaagc cttttgcagc tctgtggctt ggaatttcat ttgagcaatt tctataggat
                                                                     840
atgtatttat tattgattgt tatttaawtt ttttcccaat tttactgta ttaccaaact
gggttctcca ataatgtcca aattgtaatg ttgccttgct tcaagataaa gtgtatttgg
                                                                      900
                                                                      960
gaataatatt ataaaccctt acaaatttta tgcatgtatc tactgcatcc ttcaactctc
                                                                     1020
actagaaaat cttttgaaac caaatggatt aatttatggc tatttataat ttgctttgac
atctcactgt tggaaatttt ttaaagatga gatttgcctt tataatgtaa attgtgattt
                                                                     1080
ttgttttaca tgtgggtttc tatagtttta atttttcag cttttaagat acgagttttg
                                                                     1140
tgtaatttgg tatttttaat catttatgtt attttaaaag ctcagaatat cacattgaaa
                                                                     1200
                                                                    1260
ttactataaa tacatttaaa attatctatt ttagatctaaggaaatacta cagagatatt
                                                                     1320
ttcatqqqtt caqtaacttt tcattttata acattqqqca cqqtacaqaq tqattqtcac
ataaggtact tgaagattta ttagtttaat tctattttta cagtaacctt gaattcttct
                                                                     1380
gagttttgca tgtattaaat tcaattaatg ctgaacatga agagtaaagt atttatctga
                                                                     1440
aagaagtttc tgggttagga gaagtaatga atgtatccat ttgtacatgg tttacatgtt
                                                                     1500
                                                                     1560
gtggatgctt tgtaaacatt ttcctgtatg tttaaattgt gtttcagcag gatgtaattg
cccttgtgtg tagttaaaat gagtcatcat ctggtccttt gtgaaatgga attcatggta
                                                                     1620
ttttctgtaa cgttttcctg aagctgtttc tggagagcca cacatttaaa tacagacagc
                                                                    1680
                                                                     1740
tttcctgatc atttgattta ttgtgcacct gatttttggt ctaaaaggaa ttattgccac
aatatattt atttattctt tagattttag ccttgtaagt taaagtgctt tacatgatga
                                                                     1800
tgtgaaaagc tgtttgtccc tttactgggt ttggggggtt gttaaaagat agggaatgaa
                                                                     1806
gaatgcaaaa tggtttatcg ttcaaactgt ccactctgat ccaaccctgt actgatagta
                                                                     1920
cttcccagta tgatattgtg atgtttcata caatgcagtg aacataacca acttgttacc
                                                                     1980
                                                                     2040
taaataaaga attgataaaa acagtgtgac atattaaaaa aaaggggggc ccggtaccca
                                                                    2052
attcncccta ta
<210> 483
<211> 1237
<212> DNA
<213> Homo sapiens
<400> 483
agcaaaccca ggaaggtgtg gcgtccccgc ttcgcgccaa gatggtgctg gtgctgcgcc
                                                                       60
atcctttgtg tgcccgggaa agggcgttcc gggagccggg tcgggggctc ctgactcgca
                                                                      210
ctgggcagca tgacggtgcg ccggctgtca ctgctgtgcc gggacctctg ggcgctgtgg
                                                                      180
                                                                      240
ctgctgctga aggccggcgc agtgcgtggg gcgcgggcgg gtcctcgcct ccccggaagg
                                                                      300
tgttgtgggg cgacatgcgg ggacgccggg cgggggtgga cgttctgggc ccagcctgt
cctcagaagc tgctggggca gaagcccgg gctgggggat gccggggatg ggtgttgggg
                                                                     360
tgggtgcctc cgagaccaga ggagccctgt tccttggcag ggaaggtgtg cacgggcctt
                                                                      420
                                                                      480
gcccgatgga tggtttaggg ccatggccct ggggtccctg gtgagcagtg gggccgcctc
tgcccttggc ctgtgaggga ctgtctgtgc tggtcccaga aggctgggat cacctttc
                                                                     540
ctggctcctt tgttcgaggt ttttcataga caggctatgt ggacaaatga gggcagcgcc
                                                                      600
cacgtctggc tggtggaggg gctgcggctc ctccttggag gggacgcctg gccactgctg
                                                                      660
tececacaat ggggeeacce gtggtgeaag gegtgaeaag etgeeetete taggtaagea
                                                                      720
ggacttggga ggcccctggc cægcctgtg gacccggctg ggcggcctct gtggtctcag
                                                                     780
gtttgggtgt gtttggtctg gtcagggctc aggggctgct ggtccacact ggccccatcc
                                                                      840
tgacaattgg agctttgggg caaggtccct ggagaagggg tcacgtcggg aggaaacagc
                                                                      900
ctgggttttg ttgatgcttt tctaagaatg gagtactcgt tttcaagaga tt\tctaa
                                                                     960
ttatattttc cagcgggtac ttatgccaag tattgatgaa taattcataa aataagcatc
                                                                     1020
tttgtgaatt ttagtgaatc agaccttaac tatcaacggc aatgaatgaa catctaaagt
                                                                     1080
ttccaatttt aaagtaaaga actggctggg tacagcagtt cacgcctgta atcccagcac
                                                                     1140
tttgggaggc caaggctaga ggatcgcttg agcccaggag tttgagatca gcctgggcaa
                                                                    1200
                                                                     1237
cataccaaga cctcatctgt taaaaaaaaa aaaaaaa
<210> 484
<211> 1681
<212> DNA
```

<213> Homo sapiens

```
<400> 484
cgatggcccc gcggccgctc tagaaagtcc cgtttttttt tttttttt tttttttt
                                                                      60
                                                                      120
ttttagagta cgttctgcat tttatttytg caggcaacac tttgctcacc agcaagaaca
                                                                      180
cagcccragg aagggaccca ataacctttc aaaacscaaa ctgctkcctg cggtgagggc
                                                                      240
ccagggtcct ccacggagag gacaggcatc ttcctttccc accaggaagg agtcagcccg
gagcctctgc tatgtgcaag gcggtgtgca agcaccggct gcggctcttt gctgtctctt
                                                                      300
ctttctcttt ggggctgggc tgggtgtgcg ttctggtgct gatgctttgg cctgtgaggc
                                                                      360
tgagcttggc ayctcgaccc gttcaattac agcaacgaag aagccactgc tragygtggt
                                                                      420
ctcaggggar gcccggaggc agtgctcggc acccgggaac gtgctcggc ctcggtgggg
                                                                     480
                                                                      540
ccaggcaggc agggcgggag ctagcctgaa ggcgcccggg ttctgctgca gcgcatctcg
                                                                      600
caccacgtct tcattctcct cctggcagag ggagcacgtg gagtagacga gccgctgcag
                                                                      660
ggaagggaaa gtgagcgcgt ggcacagggc tcgctgctgg aaccctgcca gggcatgcag
                                                                      720
acgcaccggg ctaggtgtsc ctgccccggg mtcctccagc tgtctgctcg gcatacccga
                                                                      780
gccactgcag gaaggatcca gcaggayrta gtggacctca ygrtagcgyg gatcyraggg
ggagaccgcc aggaagtcct cctcagccag ytcacagcar gagacgccag cccrggccag
                                                                      840
cagcgtggcc atggatgcca gccgcttggc atccaggtca aggcaaaga tcttcccttg
                                                                     900
                                                                      960
gttcttcaga agagcagcca agtgactggt cttattgcct ggggcggcac aggcatcgat
gacatgggag cctggcgggg ggtccagcag catggctggg agacagctgg ccctgtcctg
                                                                     1020
                                                                     1080
cagaatgagg tgtccggccc ggtacagtgg gtgttcatgc agatctgtct gggcgggaaa
caccagcage teeggeatea aggggteeag gagaaaatge tteecettga gggetegtaa
                                                                     1140
                                                                     1200
gtcatcgagg ctggaagccc gaccctgata ggagaaacct tgtctcttga aataatcaac
tacatcatcg gagcaggtct tgagagtgtt cacacgcaca aatcgaggca gctgggaggc
                                                                     1260
tggaccaggc ctggatccca cttccaacag gtcctattc cggctcacac cccgatgaac
                                                                    1320
                                                                     1380
cttgagccga gccaactcag ccttgagcct cgcctggtgc cggcccaaca gagccttcca
                                                                     1440
teggececca eccetegaa agecetttee caacaacaac teatacaeta geacettgge
                                                                     1500
caggtgcggc cgcagcttct tctccgcacg gaggaggccg gcgctggcga tcacagcatc
cagcacggcg gagtagcgct gcgtttcgca caccagcgcg tacagctgct tcacgttctg
                                                                     1560
                                                                     1620
gaagttgctg gagtacacca accccttgat agagcctggc ggctctccac gccggccaac
acgcctgcag ctgcagcata cagccccatg ttccgtcgcg ctttacggct ttgtggcaaa
                                                                     1680
                                                                    1681
<210> 485
<211> 1863
<212> DNA
<213> Homo sapiens
<400> 485
gactaggccg cgagcttagt cctgggagcc gcctccgtcg ccgccgtcag agccgcccta
                                                                       60
tcagattatc ttaacaagaa aaccaactgg aaaaaaaaat gaaattcctt atcttcgcat
                                                                      120
ttttcggtgg tgttcacctt ttatccctgt gctctgggaa agctatatgc aagaatggca
                                                                      180
tctctaagag gacttttgaa gaaataaaag aagaaatagc cagctgtgga gatgttgcta
                                                                      240
                                                                      300
aagcaatcat caacctagct gtttatggta aagcccagaa cagatcctat gagcgattgg
                                                                      360
cacttctggt tgatactgtt ggacccagactgagtggctc caagaaccta gaaaaagcca
                                                                      420
tccaaattat gtaccaaaac ctgcagcaag atgggctgga gaaagttcac ctggagccag
                                                                      480
tgagaatacc ccactgggag aggggagaag aatcagctgt gatgctggag ccaagaattc
ataagatagc catcctgggt cttggcagca gcattgggac tcctccagaa ggcattacag
                                                                     540
cagaagttct ggtggtgacc tctttcgatg aactgcagag aagggcctca gaagcaagag
                                                                      600
ggaagattgt tgtttataac caaccttaca tcaactactc aaggacggtg caataccgaa
                                                                      660
                                                                      720
cgcagggggc ggtggaagct gccaaggttg gggctttggc atctctcatt cgatccgtgg
                                                                      780
cctccttctc catctacagt cctcacacag gtattcagga ataccaggat ggcgtgccca
                                                                      840
agattccaac agcctgtatt acggtggaag atgcagaaat gatgtcaaga atggcttctc
                                                                      900
atgggatcaa aattgtcatt cagctaaaga tgggggcaaa gacctaccca gatactgatt
                                                                     960
ccttcaacac tgtagcagag atcactggga gcaaatatcc agaacaggtt gtacggtca
                                                                     1020
gtggacatct ggacagctgg gatgttgggc agggtgccat ggatgatggc ggtggagcct
ttatatcatg ggaagcactc tcacttatta aagatcttgg gctgcgtcca aagaggactc
                                                                     1080
tgcggctggt gctctggact gcagaagaac aaggtggagt tggtgccttc cagtattatc
                                                                     1140
```

```
agttacacaa ggtaaatatt tocaactaca gtotggtgat ggagtotgao gcaggaacot
                                                                     1200
tcttacccac tgggctgcaa ttcactggca gtgaaaaggc cagggccatc atggaggagg
                                                                     1260
ttatgagcct gctgcagccc ctcaatatca ctcaggtcct gagccatgga gaagggacag
                                                                     1320
                                                                    1380
acatcaactt ttggatccaa gctggagtgc ctggagccag tctacttgatgacttataca
                                                                     1440
agtatttctt cttccatcac tcccacggag acaccatgac tgtcatggat ccaaagcaga
tgaatgttgc tgctgctgtt tgggctgttg tttcttatgt tgttgcagac atggaagaaa
                                                                     1500
tgctgcctag gtcctagaaa cagtaagaaa gaaacgtttt catgcttctg gccaggaatc
                                                                     1560
ctgggtctgc aactttggaa aactcctctt cacataacaa tttcatccaa ttcatcttca
                                                                     1620
aagcacaact ctatttcatg ctttctgtta ttatctttct tgatactttc caaattctct
                                                                     1680
gattctagaa aaaggaatca ttctcccctc cctcccacca catagaatca acatatggta
                                                                     1740
gggattacag tgggggcatt tctttatatc acctcttaaa aacatgttt ccactttaaa
                                                                    1800
agtaaacact taataaattt ttggaagatc tctgaaaaaa aaaaaaaaa aaagggcggc
                                                                     1860
                                                                     1863
cgc
<210> 486
<211> 1134
<212> DNA
<213> Homo sapiens
<400> 486
                                                                       60
tccatctaca gtcctcacac aggtattcag gaataccagg atggcgtgcc caagattcca
acagcctgta ttacggtgga agatgcagaa atgatgtcaa gaatggcttc tcatgggatc
                                                                       120
                                                                       180
aaaattgtca ttcagctaaa gatgggggca aagacctacc cagatactga ttccttcaac
                                                                      240
 actgtagcag agatcactgg gagcaaatat ccagaacagg ttgactggt cagtggacat
                                                                       300
ctggacagct gggatgttgg gcagggtgcc atggatgatg gcggtggagc ctttatatca
                                                                       360
 tgggaagcac tctcacttat taaagatctt gggctgcgtc caaagaggac tctgcggctg
 gtgctctgga ctgcagaaga acaaggtgga gttggtgcct tccagtatta tcagttacac
                                                                       420
 aaggtaaata tttccaacta cagtctggtg atggagtctg acgcaggaac cttcttaccc
                                                                       480
                                                                       540
 actgggctgc aattcactgg cagtgaaaag gccagggcat catggaggag gttatgagcc
 tgctgcagcc cctcaatatc actcaggtcc tgagccatgg agaagggaca gacatcaact
                                                                       600
 tttggatcca agctggagtg cctggagcca gtctactta tgacttatac aagtatttct
                                                                      660
 tettecatea eteceaegga gacaceatga etgteatgga tecaaageag atgaatgttg
                                                                       720
                                                                       780
 ctgctgctgt ttgggctgtt gtttcttatg ttgttgcaga catggaagaa atgctgccta
 ggtcctagaa acagtaagaa agaaacgttt tcatgcttct ggccaggaat cctgggtctg
                                                                       840
 caactttgga aaactcctct tcacataaca atttcatcca attcatcttc aaagcacaac
                                                                       900
 tctatttcat gctttctgtt attatctttc ttgatacttt ccaaattctc tgcattctag
                                                                       960
                                                                      1020
 aaaaaggaat cattctcccc tccctcccac cacatagaat caacatatgg tagggattac
 agtgggggca tttctttata tcacctctta amacattgt ttccacttta aaagtaaaca
                                                                     1080
 cttaataaat ttttggaaga tctctgaaaa aaaaaaaaa aaaaaaaaa aaaa
                                                                      1134
 <210> 487
 <211> 626
 <212> DNA
<213> Homo sapiens
 <400> 487
 gcccacgcgt ccgcctaaac acagtcacca tgaagctggg ctgtgtcctc atggcctggg
                                                                        60
                                                                       120
 ccctctacct ttcccttggt gtgctctggg tggcccagat gctactggct gccagttttg
 agacgctgca gtgtgaggga cctgtctgca ctgaggagag cagctgccac acggaggatg
                                                                       180
                                                                       240
 acttgactga tgcaagggaa gctggcttcc aggtcaaggc ctacactttc agtgaaccct
                                                                       300
 tccacctgat tgtgtcctat gactggctga tctccaagg tccagccaag ccagtttttg
                                                                       360
 aaggggacct gctggttctg cgctgccagg cctggcaaga ctggccactg actcaggtga
 ccttctaccg agatggctca gctctgggtc cccccgggcc taacagggaa ttctccatca
                                                                       420
 ccgtggtaca aaaggcagac agcgggcact accamtgcag tggcatcttc cagagccctg
                                                                      480
 gtcctgggat cccagaaaca gcatctgttg tggctatcac agtccaagaa ctgtttccag
                                                                       540
                                                                       600
 cgccaattct ccttctacaa ggatggaagg atagtgcaaa gcaggggggc tctcctcaga
                                                                       626
 attccagatc cccacagctt cagaaa
```

```
<210> 488
<211> 152
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (41)..(41)
<223> n equals a,t,g, or c
<400> 488
caqcccaqct tcatggtgac tgtgtttagg tctccctcgt nccgaattcc tgcagcccgg
                                                                        60
                                                                     120
gggatccact agttctagag cggccgccac cgcggtrgag ctccagcttt tgttcccttt
                                                                       152
agtgagggtt aatttcgagc ttggcgtaat ca
<210> 489
<211> 1760
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
\langle 222 \rangle (169\overline{3})...(1693)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1748)..(1748)
<223> n equals a,t,g, or c
<400> 489
gggaattctc catcaccgtg gtacaaaagg cagacagcgg gcactaccac tgcagtgcat
                                                                        60
cttccasagc cctggtcctg ggatcccaga aacagcatct gttgtggcta tcacagtcca
                                                                       120
                                                                      180
agaactgttt ccagcgccaa ttctcagagc tgtaccctca gctgaacccc agcaggarg
                                                                       240
ccccatgacc ctgagttgtc agacaaagtt gcccctgcag aggtcagctg cccgcctcct
                                                                       300
cttctccttc tacaaggatg gaaggatagt gcaaagcagg gggctctcct cagaattcca
                                                                       360
gatccccaca gcttcagaag atcactccgg gtcatactgg tgtgaggcag ccactgagga
caaccaagtt tggaaæaga gcccccagct agagatcaga gtgcagggtg cttccagctc
                                                                       420
tgctgcacct cccacattga atccagctcc tcagaaatca gctgctccag gaactgctcc
                                                                       480
tgaggaggcc cctggctctg cctccgccgc caaccccatc ttctgaggat ccaggctttt
                                                                       540
                                                                      600
cttctcctct ggggatgcca gatcctcatc tgtatcacca gatgggctt cttctcaaac
acatgcagga tgtgagagtc ctcctcggtc acctgctcat ggagttgagg gaattatctg
                                                                       660
gccaccrgaa gcctgggacc acaaaggcta ctgctgaata gaagtaaaca gttcatccat
                                                                       720
gatctcactt aaccaccca ataaatctga ttctttattt tctcttcctg tcctgcacat
                                                                       780
                                                                       840
atgcataagt acttttacaa gttgtcccag tgttttgtta gaataatgta gttaggtgag
                                                                       900
tgtaaataaa tttatataaa gtgagaatta gagtttagct ataattgtgt attctctctt
                                                                       960
aacacaacag aattctgctg tctagatcag gaatttctat ctgttatatc gaccagaatg
ttgtgattta aagagaacta atggaagtgg attgaataca gagtctcaa ctgggggcaa
                                                                     1020
                                                                      1080
ttttgccccc aagaggacat tgggcaatgt ttggagacat tttggtcatt atacttgggg
                                                                      1140
ggttggggga tggtgggatg tgtgtgctac tggcatccag taaatagaag ccaggggtgc
                                                                      1200
cgctaaacat cctataatgc acagggcagt accccacaac gaaaaataat ctggcccaaa
atgtcagttg tactgagttt gagaaacccc agcctaatga aaccctaggt gttgggctct
                                                                      1260
                                                                      1320
ggaaatggga ctttgtccyt tctaattatt atctctttcc agcctcattc agctattctt
                                                                      1380
actgacatac cagtetttag etggtgetat ggtetgttet ttagttetag tttgtatece
                                                                     1440
ctcaaaagcc attatgttga aatcctaatc cccaagtga tggcattaag aagtgggcct
ttgggaagtg attagatcag gagtgcagag ccctcatgat taggattagt gcccttattt
                                                                      1500
```

```
aaaaaggccc cagagagcta actcaccctt ccaccatatg aggacgtggc aagaagatga
                                                                    1560
catgtatgag aaccaaaaaa cagtgtcgcc aaacaccgac tctgtcgttg ccttgatctt
                                                                    1620
gaacttccag cctccagaac tatgagaaat aaaattctgt tgtttgtaag ctaatccagt
                                                                    1680
tgtgtaattt ggnatagtag cccaaatgga ctaggcagtt ggcctctggc cacatgatga
                                                                    1740
gttatggnat gtaaaaatac
                                                                    1760
<210> 490
<211> 880
<212> DNA
<213> Homo sapiens
<400> 490
ggcacgagac tggatgaaca caaactccac atgtatcttt ctgccttgca gtccttgatc
                                                                      60
ccatctctct ttgcattagt gctacagaat gcacctttct ccagcaaagc caagcttcat
                                                                     120
                                                                     180
ggtgaagtgc cacagataga agtgactagg tttcctcggc ctatgtcgcc tcttcaagat
gtgtccacta ttatcggaag tcgtgagcaa ttggcagtgc tgctgcaact ttatgactac
                                                                     240
cagctagaac aagagggtac aacaggctgg gagagtttac tgtggggttgt caatcaattg
                                                                     300
ttgccacaac ttatagaaat agttggcaaa attaatgtta cttcaactgc ctgtgtccat
                                                                     360
gaattctcca gatttttctg gcgcctttgccggacatttg gcaaaatttt tacaaacact
                                                                    420
aaggtaaaac ctcagttcca ggagatttta agactatctg aagaaaacat tgattcctca
                                                                     480
gcaggaaatg gggtcctcac taaagctaca gtccccattt atgcaacagg agtccttacg
                                                                     540
tgttatattc aggaagaaga ccgaaaactg ttagttggat tcttagaaga tgtaatgacg
                                                                   600
ctgctttcat tatctcatgc tcctcttgat agcctgaagg cttcttttgt ggaattgggt
                                                                     660
gcaaacccag cctaccatga gttactatta actgttttgt ggtatggtgt tgtccatact
                                                                     720
tcagcactcg tgaggtgtac tgctgctaga atgtttgagg tatgtcaaca catgcctctg
                                                                     780
ttggtttcaa ttataatgat ttttttttt ttgcgaagaa gaagggaatt ttttttaata
                                                                    840
                                                                     880
<210> 491
<211> 1106
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (5)..(5)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (857)..(857)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1037)..(1037)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1058)..(1058)
<223> n equals a,t,g, or c
<400> 491
tccancatta tgggatacat tgatgatcca gacaaatatc atcagggttt tgaattgttg
                                                                     60
ctgtcagcct tgggtgatcc ctcagaaaga gtagttagtg ctacacatca agtattttta
                                                                     120
ccagcttacg ctgcgtggac tacagaactt ggaaatttac agtctcatct tatacttaca
                                                                     180
```

```
ctactgaaca agattgaaaa acttctcagg gaaggagaac atggctgga tgaacacaaa
                                                                     240
ctccacatgt atctttctgc cttgcagtcc ttgatcccat ctctctttgc attagtgcta
                                                                      300
cagaatgcac ctttctccag caaagccaag cttcatggtg aagtgccaca gatagaagtg
                                                                      360
actaggtttc ctcggcctat gtcgcctctt caagatgtgt ccactattat cggaagtcgt
                                                                      420
gagcaattgg cagtgctgct gcaactttat gactaccagc tagaacaaga gggtacaaca
                                                                      480
ggctgggaga gtttactgtg ggttgtcaat caattgttgc cacaacttat agaaatagtt
                                                                      540
ggcaaaatta atgttacttc aactgcctgt gtccatgaat tctccagatt tttctggcgc
                                                                      600
ctttgccgga catttggcaa aatttttaca aacactaag taaaacctca gttccaggag
                                                                      660
attttaagac tatctgaaga aaacattgat teeteageag gaaatggggt eeteactaaa
                                                                      720
gctacagtcc ccatttatgc aacaggagtc cttacgtqtt atattcagga agaagaccga
                                                                      780
aaactgttag ttggattctt agaagatgta atgacgctgc tttcattatc tcatgctcct
                                                                      840
cttgatagcc tgaaggnttc ttttgtggaa ttgggtgcaa accaggccta ccatgagtta
                                                                      900
ctattaactg ttttgkggta tggkgtkgkc catacttcag cactcgtgag gtgtactgct
                                                                      960
gctagaatgt ttgagctgtt ggtgaagggg gtgaatgaaa ctctggtagc tcagagggtt
                                                                     1020
gttcctgctc ttcattnact ctctccagtg gacctgnaa atctctgtca ggattgccac
                                                                    1080
aatttccagc ctttgggact atttat
                                                                     1106
<210> 492
<211> 646
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (19)..(19)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (544)..(544)
<223> n equals a,t,g, or c
<400> 492
cagatgccag ggacttggnc ttcccccggt tgaaccacag gttccaagaa acctgcaggg
                                                                       60
tecageetee ecceeateee eagtytteee eaccetqgee eggeeteea ggtgeagaaa
                                                                      120
catgcaggcc cctctccagg actgtgggag gagtgtgtcc ctcagactgg cctqtqtcct
                                                                      180
ggctcctctt accacctctt ccagaggttg tcacctgcag ctgccccagg ataaaggcaa
                                                                      240
ggccagarag gactcctgaa ctcctgtgtg cctggggtgg caggggcaaa catagccaac
                                                                      300
tggtggcctg agcggggcca tggtgargac accettggtg gcttgtccca catcaagctg
                                                                     360
ggargtgaca cttaggatgc atttttcaat attttagtgt ttgaataacg ggctawcttg
                                                                      420
agaaaaaaat aatttgaatc acacatcaca ccaaaaataa attctaggtg gattttaaca
                                                                      480
ctttccaaaa attattatta gtttagagac agggtctcac tccgtcgcct aggctggagt
                                                                      540
gcangggtat gatcatggtt cactgcaacc ttaaactccc tggcctcata tgatccccc
                                                                      600
gggctccagc ccctccaaag ttactgggaa actaccaaac atgccc
                                                                      646
<210> 493
<211> 1590
<212> DNA
<213> Homo sapiens
<400> 493
ttttttttt tttgtttaaa tgatacaact taattttatt aggacagacg ctggcggcca
                                                                      60
ccagaagttt gagcctcttt ggtagcagga ggctggaaga aaggacagaa gtagctctgg
                                                                      120
ctgtgatggg gatcttactg ggcctgctac tcctggggca cctaacagtg gacacttatg
                                                                      180
gccgtcccat cctggaagtg ccagagagtg taacaggacc ttggaaaggg gatgtgaatc
                                                                      240
ttccctgcac ctatgacccc ctgcaaggct acacccaagt cttggtgaag tggctggtac
                                                                      300
aacgtggctc agaccctgtc accatctttc tacgtgactc ttctggagac catatccagc
                                                                      360
```

```
aggcaaagta ccagggccgc ctgcatgtga gccacaaggt tccaggagat gtatccctcc
                                                                      420
                                                                     480
aattqaqcac cctqqaqatq qatqaccqqa qccactacac gtgtgaagtc accqgcaga
                                                                      540
ctcctqatqq caaccaagtc gtgagagata agattactga gctccgtgtc cagaaacact
                                                                      600
cctcaaagct actcaagacc aagactgagg cacctacaac catgacatac cccttgaaag
                                                                      660
caacatctac agtgaagcag tcctgggact ggaccactga catggatggc taccttggag
                                                                      720
agaccagtgc tgggccagga aagagcctgc ctgtctttgc catcatcctc atcatctcct
tgtgctgtat ggtggttttt accatggcct atatcatgct ctgtcggaag acatcccaac
                                                                      780
                                                                      840
aagagcatgt ctacgaagca gccagggcac atgccagaga ggccaacgac tctggagaaa
ccatgagggt ggccatcttc gcaagtggct gctccagtga tgagccaat tcccagaatc
                                                                     900
                                                                      960
tgggcaacaa ctactctgat gagccctgca taggacagga gtaccagatc atcgcccaga
                                                                     1020
tcaatggcaa ctacgcccgc ctgctggaca cagttcctct ggattatgag tttctggcca
                                                                     1080
ctgagggcaa aagtgtctgt taaaaatgcc ccattaggcc aggatctgct gacataattg
cctagtcagt ccttgccttc tgcatggcct tcttccctgc tacctctctt cctggatagc
                                                                     1140
                                                                     1200
ccaaagtgtc cgcctaccaa cactggagcc gctgggagtc actggctttg ccctggaatt
                                                                     1260
tgccagatgc atctcaagta agccagctgc tggatttggc tctgggccct tctagtatct
                                                                    1320
ctgccggggg cttctggtac tcctctctaa ataccagagg gagatgccc atagcactag
                                                                     1380
gacttggtca tcatgcctac agacactatt caactttggc atcttgccac cagaagaccc
                                                                     1440
gagggagget cagetetgee ageteagagg accagetata tecaggatea titetetite
                                                                     1500
ttcagggcca gacagctttt aattgaaatt gttatttcac aggccagggt tcagttctgc
tcctccacta taagtctaat gttctgactc tctcctggtg ctcaataaat atctaatcat
                                                                     1560
aacagcaaaa aaaaaaaaaa aaaactcgag
                                                                     1590
<210> 494
<211> 1179
<212> DNA
<213> Homo sapiens
<400> 494
gggctgcagg aattcggcac gagtttaaag ggtgactcgt ccacttgtg ttctctccc
                                                                      60
                                                                      120
tggtgcagag ttgcaagcaa gtttatcgga gtatcgccat gaagttcgtc ccctgcctcc
                                                                      180
tgctggtgac cttgtcctgc ctggggactt tgggtcaggc cccgaggcaa aagcaaggaa
                                                                      240
gcactgggga ggaattccat ttccagactg gagggagaga ttcctgcact atgcgtccca
gcagcttggg gcaaggtgct ggagaagtct ggcttcgcgt tcgactgccg caacacagac
                                                                      300
cagacctact ggtgtgagta cagggggcag cccagcatgt gccaggcttt cgctgctgac
                                                                      360
cccaaatctt actggaatca agccctgcag gagctgaggc gccttcacca tgcgtgccag
                                                                      420
                                                                     480
ggggccccgg tgcttaggcc atccgtgtgc agggag@tg gaccccaggc ccatatgcag
                                                                      540
caggtgactt ccagcctcaa gggcagccca gagcccaacc agcagcctga ggctgggacg
                                                                      600
ccatctctga ggcccaaggc cacagtgaaa ctcacagaag caacacagct gggaaaggac
tcgatggaag agctgggaaa agccaaaccc accacccgac ccacagccaa acctacccag
                                                                      660
                                                                      720
cctggaccca ggcccggagg gaatgaggaa gcaaagaaga aggcctggga acattgttgg
aaaccettce aggecetgtg egeetttete ateagettet teegagggtg acaggtgaaa
                                                                      780
                                                                      840
gacccctaca gatctgacct ctccctgaca gacaaccatc tctttttata ttatgccgct
ttcaatccaa cgttctcaca ctggaagaag ægagtttcta atcagatgca acggcccaaa
                                                                      900
                                                                      960
ttcttgatct gcagcttctc tgaagtttgg aaaagaaacc ttcctttctg gagtttgcag
agttcagcaa tatgataggg aacaggtgct gatgggccca agagtgacaa gcatacacaa
                                                                     1020
ctacttatta tctgtagaag ttttgctttg ttgatctgag ccttctatga aagtttaaat 1080
                                                                     1140
atgtaacgca ttcatgaatt tccagtgttc agtaaatagc agctatgtgt gtgcaaaata
                                                                     1179
aaagaatgat ttcagaaaaa aaaaaaaaa aaaactcga
<210> 495
<211> 819
<212> DNA
<213> Homo sapiens
<400> 495
gaattcggca cgaggagaat catgggcctc tgctgggca tgctggcctg tgtcttcctg
                                                                       60
gcaactgctg cctttgttgc ttatactgcc cggctggact ggaagcttgc tgcagaggag
                                                                      120
```

```
180
gctaagaaac attcaggccg gcagcagcag cagagagcag agagcactgc aaccagacct
                                                                  240
gggcctgaga aagcagtcct atcttcagtg gctacaggca gttcccctgg cattaccttg
                                                                   300
acaacqtatt caaggtctga gtgccacgtg gacttcttca ggactccaga ggaggcccac
                                                                   360
gccctttcag ctcctaccag cagactatca gtgaaacagc tggtcatccg ccgtggggct
                                                                   420
gctctggggg cggcgtcagc acactgatgg tggggctcac ggtcaggatc ctagccacca
                                                                   480
ggcactagca aagaagcttg gaaatagaaa gccaggagtg gctgtcccca gtatgcaaac
acaccacggt ctgccctgca aaaacaccaa tggggtctag tgcaggtgga cactttgaac
                                                                   540
cactcctcaa aaaaagaact ttggctgaty ccttgtggtg acactcagag gggtctgaac
                                                                   600
agacttgaca attctgttct ggtcaagctg gagttttctt ctgtgacttg gactgctta
                                                                  660
                                                                   720
cagaagacat cagccaactg cacgagtcag agtccaggga ttgtcactat tattaataat
                                                                   780
gtaaatggct tcaaatggga cactgcagat aammycacaa aaaccactgt tatattaaag
                                                                   819
attacacatt tcctggaaaa aaaaaaaaaa aaaactcga
<210> 496
<211> 1792
<212> DNA
<213> Homo sapiens
<400> 496
ggcacgaggt tgtttgagtt tggtttggag caaaactgag gtagtcctaa catttctggg
                                                                    60
120
                                                                  180
tacacaatga catggagaat gggaccccgt ttcactatgc tgttggccat gtggctgtg
                                                                    240
tgtggatcag aaccccaccc ccatgccact attagaggca gccacggagg acggaaagtg
cctttggttt ctccggacag cagtaggcca gctcggtttc tgaggcacac tgggaggtct
                                                                    300
                                                                    360
cqcqqaattq agagatccac tctggaggaa ccaaaccttc agcctctcca gagaaggagg
                                                                   420
agtgtgcccg tgttgagact agctcgccca acagagccgc cagcccgctc ggacatcaat
                                                                    480
ggggccgccg tgagacctga gcaaagacca gcagccaggg gctctccgcg tgagatgatc
agagatgagg ggtcctcagc tcggtcaaga atgttgcgtt tcccttcggg gtccagctct
                                                                    540
                                                                   600
cccaacatcc ttgccagctt tgcagggaag aacagagtat gggtcatctcagcccctcat
gcctcggaag gctactaccg cctcatgatg agcctgctga aggacgatgt gtactgtgag
                                                                    660
ctggcggaga ggcacatcca acagattgtg ctcttccacc aggcaggaga ggaaggaggc
                                                                   720
                                                                    780
aaggtgagaa ggatcaccag cgagggccag atcctggagc agcccctgga ccctagcctc
                                                                   840
atccctaagc tgatgagctt cctgaagctg gagaagggca agtttggcat ggtgctgctg
aagaagacgc tgcaggtgga ggagcgctat ccatatcccg ttaggctgga agccatgtac
                                                                    900
                                                                    960
gaggtcatcg accaaggccc catccgtagg atcgagaaga tcaggcagaa gggctttgtc
                                                                  1020
cagaaatgta aggcctctgg tgtagagggc caggtggtgg cggagggaa tgacggtgga
                                                                   1080
gggggagcag gaaggccaag cctgggcagc gagaagaaga aagaggaccc aaggagagca
caagtcccac caaccagaga gagtcgggtg aaggtcctga gaaaactggc cgccactgca
                                                                   1140
                                                                   1200
ccagetttte eccaacetee etcaacecee agagecacea ecetteetee tgeeccagee
acaacagtga ctcggtccac gtcccgggcg gtaacagttg ctgcaagacc tatgaccacc
                                                                   1260
actgcctttc ccaccacgca gaggccctgg accccctcac cctcccacag gccccctaca
                                                                   1320
accactgagg tgatcactgc caggagaccc tcagtttcag agaatcttta ccctccatcc
                                                                   1380
                                                                  1440
cggaaggatc agcacaggga gaggccacag acaaccaggaggcccagcaa ggccaccagc
                                                                   1500
ttggagagct tcacaaatgc ccctcccacc accatctcag aacccagcac aagggctgct
                                                                   1560
ggcccaggcc gtttccggga caaccgcatg gacaggcggg aacatggcca ccgagaccca
                                                                   1620
aatgtggtgc caggtcctcc caagccagca aaggagaaac ctcccaaaaa gaaggcccag
                                                                   1680
gacaaaattc ttagtaatga gtatgaggaa gtatgacctc agccggccta ctgcctctca
gctggaggac gagctgcagg tggggaatgt tccccttaaa aaagcaaagg agtctaaaaa
                                                                   1740
1792
<210> 497
<211> 1673
<212> DNA
<213> Homo sapiens
<400> 497
                                                                     60
ggcacgagag aatgggaccc cgtttcacta tgctgttggc catgtggcta gtgtgtggat
```

```
120
cagaacccca ccccatgcc actattagag gcagccacgg aggacggaaa gtgcctttgg
tttctccgga cagcagtagg ccagctcggt ttctgaggca cactgggagg tctcgcggaa
                                                                      180
ttgagagatc cactctggag gaaccaaacc ttcagcctct ccagagaagg aggagtgtgc
                                                                      240
                                                                      300
ccgtgttgag actagctcgc ccaacagagc cgccagcccg ctcggacatc aatggggccg
                                                                      360
ccgtgagacc tgagcaaaga ccagcagcca ggggctctcc gcgtgagatg atcagagatg
aggggtcctc agctcggtca agaatgttgc gttcccttc ggggtccagc tctcccaaca
                                                                     420
teettgecag ctttgeaggg aagaacagag tatgggteat eteageeeet catgeetegg
                                                                      480
aaggctacta ccgcctcatg atgagcctgc tgaaggacga tgtgtactgt gagctggcgg
                                                                      540
                                                                     060
agaggcacat ccaacagatt gtgctcttcc accaggcagg agaggaagga ggcaaggtga
                                                                      660
qaaggatcac cagcgagggc cagatcctgg agcagcccct ggaccctagc ctcatcccta
                                                                      720
agctgatgag cttcctgaag ctggagaagg gcaagtttgg catggtgctg ctgaagaaga
                                                                      780
cgctgcaggt ggaggagcgc tatccatatc ccgttaggct ggaagccatg tacgaggtca
                                                                     840
tcgaccaagg ccccatccgt aggatcgaga agatcaggca gaagggcttt gtccagaaat
                                                                      900
gtaaggcctc tggtgtagag ggccaggtgg tggcggaggg gaatgacggt ggagggggag
caggaaggcc aagccagggc agcgagaaga agaaagagga cccaaggaga gcacaagtcc
                                                                      960
caccaaccag agagagtcgg gtgaaggtgc tgagaaaact ggccgccact gcaccagct
                                                                   1020
ttccccaacc tccctcaacc cccagagcca ccacgcttac tcctgcccca gccacaacag
                                                                     1080
tgactcggtc cacgtcccgg gcgggaaaca gatgctgcaa gacctatgac caccactggc
                                                                     1140
tttcccacca cgcagaggcc ctggaccccc tcacccttcc cacaggcccc ctacaaccac
                                                                     1200
tgagggtgat cactgccagg agaccctcag tttccagaga atctttaccc tccattcccg
                                                                    1260
gaaggatcag cacagggaga ggccacagac aaccaggagg cccagcaagg cccaccagct
                                                                     1320
tggagagett cacaaatgee eeteecacea eeateteaga acceageaca agggetgetg
                                                                     1380
gcccaggccg tttccgggac aaccgcatgg acaggcggga acatggccac cggacccaa
                                                                    1440
                                                                     1500
atgtggtgcc aggtcctccc aagccagcaa aggagaaacc tcccaaaaag aaggcccagg
acaaaattct tagtaatgag tatgaggaga agtatgacct cagccggcct actgcctctc
                                                                     1560
                                                                     1620
agctggagga cgagctgcag gtggggaatg ttccccttaa aaaagcaaag gagtctaaaa
                                                                    1673
agcatgaaaa gcttgagaaa ccagagaagg agaagaaaaa aaaaaaaaa aaa
<210> 498
<211> 2084
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (775)..(775)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2080)..(2080)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (2083)..(2083)
<223> n equals a,t,g, or c
<400> 498
                                                                       60
ggcagagggc catttcctgc aaagagccaa acccccattc ctctgtgccc ctcctctccc
accaagtgct ttataaaaat agctcttgtt accggaaata actgttcatt tttcactcct
                                                                      120
ccctcctagg tcacactttt cagaaaaaga atctgcatcc tggaaaccag aagaaaaata
                                                                      180
tgagacgggg aatcatcgtg tgatgtgtgt sctgcctttg gctgagtgtg tggagtcctg
                                                                      240
                                                                      300
ctcaggtgtt aggtacagtg tgtttgatcg tggtggcttg aggggaaccg cttgttcaga
gctgtgactg cggctgcact gcagagaagc tgccctggc tgctcgtagc gccgggcctt
                                                                     360
ctctcctcgt catcatccag agcagccagt gtccgggagg cagaaggtac cggggcagct
                                                                      420
actggaggac tgtgcgggcc tgcctgggct gccccctccg ccgtggggcc ctgttgctgc
                                                                      480
```

```
600
ttgccctcct gggccttctc gcaggcactg aacatcctcc tgggcctcaa gggcctggcc
                                                                      660
ccagctgaga tctctgcagt gtgtgaaaaa gggaatttca acgtggccca tgggctggca
tggtcatatt acatcggata tctgcggctg atcctgccag agctccaggc ccggattcga
                                                                      720
acttacaatc agcattacaa caacctgctacggggtgcag tgagccagcg gtgtnatatt
                                                                     780
                                                                      840
ctcctcccat tggactgtgg ggtgcctgat aacctgagta tggctgaccc caacattcgc
ttcctggata aactgcccca gcagaccggt gaccgtgctg gcatcaagga tcgggtttac
                                                                      900
agcaacagca tctatgagct tctggagaac gggcagcggg cgggcacctg tgtcctggag
                                                                     960
tacgccaccc ccttgcagac tttgtttgcc atgtcacaat acagtcaagc tggctttagc
                                                                     1020
ggggaggata ggcttgagca ggccaaactc ttctgccgga cacttgagga catcctqqca
                                                                     1080
gatgcccctg agtctcagaa caactgccgc ctcattgcct accaggaacc tgcagatgac
                                                                     1140
agcagettet egetgteeca ggaggttete eggeacetge ggeaggagga aaaggaagag
                                                                    1200
gttactgtgg gcagcttgaa gacctcagcg gtgcccagta cctccacgat gtcccaagag
                                                                     1260
                                                                     1320
cctgagctcc tcatcagtgg aatggaaaag cccctccctc tccgcacgga tttctcttga
                                                                    1380
gacccagggt caccaggcca gagcctccag tggtctccaa gcctctggac tggggctct
cttcagtggc tgaatgtcca gcagagctat ttccttccac agggggcctt gcagggaagg
                                                                     1440
gtccaggact tgacatctta agatgcgtct tgtccccttg ggccagtcat ttcccctctc
                                                                     1500
                                                                     1560
tgagcctcgg tgtcttcaac ctgtgaaatg ggatcataat cactgcctta cctccctcac
ggttgttgtg aggactgagt gtgtggaagt ttttcataaa ctttggatgc tagtgtactt
                                                                    1620
agggggtgtg ccaggtgtct ttcatggggc cttccagacc cactccccac ccttctcccc
                                                                     1680
ttcctttgcc cggggacgcc gaactctctc aatggtatca acaggctcct tcgccctctg
                                                                     1740
gctcctggtc atgttccatt attggggagc cccagcagaa gaatggaggaggaggagg
                                                                    1800
ctgagtttgg ggtattgaat cccccggctc ccaccctgca gcatcaaggt tgctatggac
                                                                     1860
totoctgoog ggcaactott gogtaatoat gactatotot aggattotgg caccacttoo
                                                                     1920
ttccctggcc ccttaagcct agctgtgtat cggcacccc accccactag agtactccct
                                                                     1980
ctcacttgcg gtttccttat actccaccc tttctcaacg gtcctttttt aaagcacatc
                                                                     2040
                                                                     2084
tcagattaaa aaaaaaaaa aaaaaaaaa aggggggcn gcnt
<210> 499
<211> 1501
<212> DNA
<213> Homo sapiens
<400> 499
ggcacgagcc tatttctgct tactgtgtta ccagagagcc tgggggtcq gatcctatct
                                                                      60
                                                                      120
ggccccgtca gggtggattg ccaaatgagc agttctcttg ccccagtccc tttcctgtgc
tataaataag ccccatgttt attttcttat gttattgaaa tgagcacttg tgatttgggc
                                                                      180
                                                                      240
ctcttttgag gagtccagag agcgtccatc cggtgcctgg tgagggccct gcatggctgg
ctgctgtctg aagctatttg gagtcctctc cctgtgtttt ctatgtggct taatttcaat
                                                                      300
                                                                      360
agaaagggtt atatgcaacc ctgtatctgc tgattttcag gtttcaactt tctgccagcg
tcactgcctg cttagaagta aagttatgtt tcccataagg ggataacagc cacaattgag
                                                                      420
gtaattaacg aaaattgtac attggtggca gcacctccta tagatttcc aatagtcttt
                                                                     480
ctctagtaga tcattggggg ctcaccttga tctcctctct tctgtctacc ctgcaccaaa
                                                                      540
ataccttgtc ctgttttctg gatatagttc caataatttt tttcctaaca gcctttttgt
                                                                      600
caccagttgg tttgatatct tacaacttgg ccaaatgagg gttccattaa ctccatcttg
                                                                      660
tctaatgcat ggagaattca aggatttttt ttttcctctt ttcatagcac cttccagttg
                                                                      720
ccagttgtac cctggccctt ctttggaagt cataatgatg aatatccatt aataagagat
                                                                      780
tgatgctctt tcaactctca tgtcatctat accatctcag tggagaggat gactttggat
                                                                      840
                                                                     900
gaggttggaa tacaaaggaa acatttggaa gtccactga gtgtattata tgctgtgtgg
aagtctgggg gttaggaaat acctggaggg agaacttcct aagaaatgat ttttggttct
                                                                      960
                                                                     1020
tttaggcctt aacagcacaa taaaagtatc ccatgagacc attatgagca ggacacgaca
                                                                     1080
ttgtttcaca ccttgggctg tgactattta cttctcggta cagattactc tggttaaatc
                                                                     1140
actcagtaaa gaaatctttt catgctcaca atctgaacct gaaggctatt actgaagaga
attgcatctg acaacaaaat ttaatttact tccagagaaa ggaccagaag aaagtaaatt
                                                                     1200
ttcatttatg tttttaagtc tattgtctta aaaagattct tttcccttaa aaaataaaaa
                                                                     1260
```

tqtccatcta tttctactac tccctcccaa atgcggtcgg cccgcccttc acttggatgc

540

1320 1380

aacctgatgt gatgggttcc ttcagtcaac amtacttat tgagcagtta ttgtgtgcca

gatactgttc ttggtgtgag gatatggcac tgaacaaaac aatgtaccta ctttcgtcaa

```
gcttacattc tagtgaggaa gataaccaaa acaagtgact gaatataatt tcaaatgtca
                                                               1440
500
                                                               1501
<210> 500
<211> 720
<212> DNA
<213> Homo sapiens
<400> 500
ggcacgagat ttctcacaat gacaaattct caaatattgc taatagtact gtggattttc
                                                                 60
ctacattggt aaattgaagg aattgctaaa totgaaattc agcaaccagt ttgagattgt
                                                                120
tgaaaataaa gattgtttct ttttcaatgc aagttcacag atcactggag ttctagctac
                                                                180
agtttgttct agaccagagg ttgcagatat ttttgtccta taaagagaca catggttaat
                                                                240
atttttggct ttgtgagttg tatagttttc gttgtagctg ttcagctctg ctacatgaag
                                                               300
caaccataga ccatacctta acaagtggtc acttttgagt accaataaaa ctttatttag
                                                                360
aaataacaga gggctggatt tggtcctagt ttgctgaacc cttttctaga tgaaggctcc
                                                                420
tettgccaag actggctccc tacettggct gacaaattet caetttggga ettagtcatt
                                                                480
gttgctgctc tctgttattt tgcatgtctt ttctcatgtt taggtgctgt gtcttaatac
                                                                540
ttttttctta catttaattt aacaatcatt actgagcgct ggtatgtcta gtttcttttc
                                                                600
tottctttcc tootttctt ttotttttt cttttcttt atttgaaggc totcactctg
                                                                660
720
<210> 501
<211> 2460
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (172)..(172)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2457)..(2457)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2459)..(2460)
<223> n equals a,t,q, or c
<400> 501
ggatcgccgg gaggaccccc gcctcgccga agacgggcgg ggcaagccga gcctcacggg
                                                                 60
gtccccggag ctgggccggg cctccagatg gagaaggcgc aacggggagt tcttgagtaa
                                                                120
gccagagcgg tgtccagcgc ggtgtagccg cagccgccgc tgtcggcgc ancaacgggc
                                                               180
aaccccgtag aagtcggtcg gcaggtcctc tccaacccgc cgctaccgcg ccgctgtggg
                                                                240
agagacccca gcaggagccc aarggcagct acgggggcgc gaaggccgct ggcgccgcct
                                                                300
cggccagccc ttcccgcgcg gttccactgc cttaaggatg acagtcgtag ggaaccctcg
                                                                360
aagttggagc tgccagtggt tgccaatcct gatactgttg ctgggcacag gccatgggcc
                                                                420
aggggtggaa ggcgtgacac actacaaggc cggcgaccct gttattctgt atgtcaacaa
                                                                480
agtgggaccc taccataacc ctcaggaaac ttaccactac tatcagcttc cagtctgctg
                                                                540
ccctgagaag atacgtcaca aaagccttag cctgggtgaagtgctggatg gggaccgaat
                                                               600
660
catgcagctc agttctgcac aggtggagca gctgcgccag gccattgaag aactgtacta
                                                                720
ctttgaattt gtggtagatg acttgccaat ccggggcttt gtgggctaca tggaggagag
                                                                780
```

```
840
tggtttcctg ccacacagcc acaagatagg actctggacc catttggact tccacctaga
                                                                    900
attccatgga gaccgaatta tatttgccaa tgtttcagtg cgggacgtca agccccacag
cttggatggg ttacgacctg acgagttcct aggccttacc cacacttata gcgtgcgctg
                                                                    960
gtctgagact tcagtggagc gtcggagtga cag@gccgt ggtgacgatg gtggtttctt
                                                                  1020
tcctcgaaca ctggaaatcc attggttgtc catcatcaac tccatggtgc ttgtgttttt
                                                                   1080
actggtgggt tttgtggctg tcattctaat gcgtgtgctt cggaatgacc tggctcggta
                                                                   1140
caacttagat gaggagacca cctctgcagg ttctggtgat gactttgacc agggtgacaa
                                                                   1200
tggctggaaa attatccata cagatgtctt ccgcttcccc ccataccgtg gtctgctctg
                                                                   1260
tgctgtgctt ggcgtgggtg cccagttcct ggcccttggc actggcatta ttgtcatggc
                                                                   1320
actgctgggc atgttcaatg tgcaccgtca tggggccatt aactcagcag ccatcttgtt
                                                                   1380
gtatgccctg acctgctgca tctctggcta cgtgtccagc cacttctacc ggcagattgg
                                                                   1440
                                                                   1500
aggegagegt tgggtgtgga acateattet caccaccagt etettetetg tgeetttett
cctgacgtgg agtgtggtga actcagtgca ttgggccaat ggttcgacac aggctctgcc
                                                                   1560
agccacaacc atcctgctgc ttctgacggt ttggctgctg gtgggctttc ccctcactgt
                                                                 1620
cattggaggc atctttggga agaacaacgc cagccccttt gatgcaccct gtcgcaccaa
                                                                   1680
gaacatcgcc cgggagattc caccccagcc ctggtacaag tctactgtca tccacatgac
                                                                   1740
tgttggaggc ttcctgcctt tcagtgccat ctctgtggag ctgtactaca tctttgccac
                                                                   1800
agtatggggt cgggagcagt acætttgta cggcatcctc ttctttgtct tcgccatcct
                                                                   1860
gctgagtgtg ggggcttgca tctccattgc actcacctac ttccagttgt ctggggagga
                                                                   1920
ttaccgctgg tggtggcgat ctgtgctgag tgttggctcc accggcctct tcatcttcct
                                                                   1980
ctactcaqtt ttctattatg cccggcgctc caacatgtct ggggcagtac agaægtaga
                                                                  2040
gttcttcggc tactccttac tcactggtta tgtcttcttc ctcatgctgg gcaccatctc
                                                                   2100
ctttttttct tccctaaagt tcatccggta tatctatgtt aacctcaaga tggactgagt
                                                                   2160
tctgtatggc agaactattg ctgttctctc cctttcttca tgccctgttg aactctccta
                                                                   2220
ccagcttctc ttctgattga ctgaattgtg tgatggcatt gttgccttcc cttttgccct
                                                                   2280
ttgggcattc cttccccaga gagggcctgg aaattataaa tctctatcac ataaggatta
                                                                   2340
                                                                   2400
tatatttgaa ctttttaagt tgcctttagt tttggtcctg atttttcttt ttacaattac
2460
<210> 502
<211> 738
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (646)..(646)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (670)..(670)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (696)..(696)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (707)..(707)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
```

<222> (718)..(718)

```
<223> n equals a,t,g, or c
<400> 502
catcagacca cacccagcag tcagaaaaga ggtgagggg cccgggctgg gacagtgaag
                                                                      60
                                                                      120
agtgctgggc agtctgtggt cctctgtatc tcaacttttt catcttaaaa aaacaaatag
                                                                      180
ggttgtgtgt gtggctggtg gtcataaggt cctttctggc tctaataacc tgagcttctg
ttatgaagct gggaccctta gagcctcagg atgatcctct gtttgtttgt gaagccccaa
                                                                      240
tcaggtgcta agcaccatag tggcacttag ctgaagctcc tctgtaactc ctgtgggccc
                                                                      300
tgccttgccc accccgaca gctgctgcag tgctcctgag cagcacaggc ctgatggagc
                                                                      360
                                                                      420
tictqqaqaa gatgctggcc ctcaccttgg caaaggcaga ttctcccagg actgcactcc
tctgctctgc ctggctgctc actgcctccttctctgccca gcagcacaag ggcagtttgc
                                                                      480
aggttcacca gacactctct gtggaaatgg accargtatt gaaggctctc agctttccaa
                                                                      540
                                                                      600
agaaaaaggc tgcactactc tcaactgcca tcttatgctt cctgcggaca gccctgcgac
                                                                     660
aaagcttttc ctctgcctgg aaccctggtg cccttaaggg cccagncact gcagccacca
                                                                      720
aggacactgn cctaacttca ctgcgaatgt ccaagnccgg ccctggncat tgggctgnaa
                                                                      738
aaacctcctg gtgcaaaa
<210> 503
<211> 935
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (6)..(6)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (14)..(14)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (16)..(16)
<223> n equals a,t,q, or c
<220>
<221> misc_feature
<222> (50)..(50)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (95)..(95)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (101)..(101)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (139)..(139)
```

<223> n equals a,t,g, or c

```
<220>
<221> misc feature
<222> (176)..(176)
<223> n equals a,t,g, or c
<400> 503
ggccancttt tttntngggg aaaaaatggg acccaaaagt tatttgaaan gggctttttc
                                                                       60
aagctttttc ccaaaaggaa aaaaagggtt gccantaatt nttcaaggat tgcccatctt
                                                                      120
taatgctttc cttggggana agccttgcga caaaagcttt ttcttctgc cctggnagcc
                                                                     180
                                                                      240
ctggtgcctt caggggccca gccactgcca gccaccaagg acactgtcct agctccactg
cgaatgtcgc aagtccggtc cctggtcatt gggctgcaga acctcctggt gcagaaggac
                                                                      300
cctctattgt cccaggcctg tgttggctgc ctggaggcct tgcttgacta cctggatgcc
                                                                      360
                                                                      420
cggagcccag acattgctct ccacgtggcc tcccagcctt ggaatcggtt tttgctgttt
                                                                      480
accetettgg atgetggaga gaatteette etcagacetg agattttgag geteatgace
                                                                      540
ctgtttatgc ggtaccggag tagcagtgtc ctctctcatg aagaggtggg tgatgttctg
                                                                     600
caaggtgtgg ctttggctga cctgtctacc ctctcgaaa ccacactcca ggccctgcat
ggcttcttcc agcagctcca gagcatggga cacctggctg accacagcat ggcccagacc
                                                                      660
                                                                      720
ctgcaggcct ccttggaggg ccttccccct agcacctcct caggccagcc acccctgcag
gacatgetet geetgggagg ggtggetgta teeetgteee acateagaaa etgateetea
                                                                      780
                                                                      840
ggacttgaag gcccagaagt ggagagagaa tgagacctgg agacaaaggg cataattgtt
ggggaaatgg atgacagctg aagctattca tatggagcca tatactctat tgttgaaata
                                                                      900
                                                                      935
gaataaggaa ataaaatgat acactcacaa aaaaa
<210> 504
<211> 871
<212> DNA
<213> Homo sapiens
<400> 504
ggcacgaggg aacccagaag atgctgcctc tcctgatcat ctgtctcctg cctgccattg
                                                                       60
                                                                      120
aagggaagaa ctgcctccgc tgctggccag aactgtctgc cttgatagac tatgacctgc
                                                                      180
agateetetg ggtgaeeeea gggeeaeeea eagaaettte teaaagtatt eaeteettgt
tcctagagga taataatttt ctcaaaccct ggtaccttga tcgtgaccat ttggaagaag
                                                                      240
                                                                      300
aaacagccaa attetteact caagtacace aagecattaa aacgttaega gatgataaaa
                                                                      360
cagtacttct ggaagagatc tacacgcaca agaatctctt tactgagagg ctgaataaga
                                                                      420
tatctgatgg gctgaaggag aaggagccc accctctcc atgaatgcct tcccggctcc
                                                                      480
atttcctact tgcaccccag aaccccttgg cttctgtctg cctccccagc acctcagttt
ctctaccttc tcaccctccc tggcagcctg caatgagtcc tgtgccagga accggcggac
                                                                      540
ctccctgtgg gctgtgagtc tcagcagtgc tctactcctg gccatagctg gagatgtttc
                                                                      ന്ന
ttttactggc aaaggaagaa ggaggcagta aaggaacagg gcagcccgca tgtcttccag
                                                                      660
aagtgaacag aggccgcagc taccaccgtc acaaagttca ctcatctctg ggtcccggtg
                                                                      720
                                                                      780
accccatccc cccataccct ccatcctggg tcctggggcc ccaaagctct gaggcctagg
                                                                      840
agactgcqct gtctcgtggt ttgcctacc ctacaccttt gtaaagagtc tcttcattaa
                                                                      871
aacccctctt cataaaaaaa aaaaaaaaa a
<210> 505
<211> 881
<212> DNA
<213> Homo sapiens
<400> 505
                                                                      60
gaattcggca cgagggaacc cagaagatgc tgcctctcct gatcatctgt ctcctgcctg
ccattgaagg gaagaactgc ctccgctgct ggccagaact gtctgccttg atagactatg
                                                                      120
                                                                      180
acctgcagat cctctgggtg accccagggc cacccacaga actttctcaa agtattcact
ccttgttcct agaggataat aattttctca aaccctggta ccttgatcgt gaccatttgg
                                                                      240
                                                                      300
aagaagaaac agccaaattc ttcactcaag tacaccaagc cattaaaacg ttacgagatg
ataaaacagt acttctggaa gagatctaca cgcacaagaa tctctttact gagaggctga
                                                                      360
```

```
420
ataagatatc tgatgggctg aaggagaagg gagccccacc cytctccatg aatgccttcc
                                                                     480
eggetecate tectaettge acceeagaac ceettggete tgtetgeete eecageact
cagtttctct accttctcac ctccctggca gcctgcaatg agtcctgtgc caggaaccgg
                                                                      540
eggacetece tgtgggetgt gagteteage agtgetetae teetggeeat agetggagat
                                                                      600
                                                                      660
gtttctttta ctggcaaagg aagaaggagg cagtaaagga acagggcagc ccgcatgtct
                                                                      720
tccagaagtg aacagaggcc g@gctacca ccgtcacaaa gttcactcat ctctgggtcc
eggtgacece atecececat accetecate etgggteetg gggeeceaaa getetgagge
                                                                      780
ctaggagact gcgctgtctc gtggtttgcc tactcctaca cctttgtaaa gagtctcttc
                                                                      840
attaaaaccc ctcttcataa aaaaaaaaaa aaaaaactcg a
                                                                     881
<210> 506
<211> 632
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (537)..(537)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (579)..(579)
<223> n equals a,t,g, or c
<400> 506
tttgagcact actgggtggt tagcatgatt gaggaaaaat gatgggaata agaagtggaa
                                                                       60
gtggtctttg tatcacaagt tgaatttctc actttgagta gtagtgaagt cactactgta
                                                                      120
agagctggtc agtgaatgtg gttgcagcat ggcctttggg caagaagtaa cccatttaac
                                                                      180
taaaaccagc tggttggccc cactcagatt tatcaaaggg ttactggtc cctgggggtg
                                                                     240
gatattgctt atattagact tagaatagca tactgtttta atattatatg aactaaaatg
                                                                      300
                                                                      360
tttctttaaa aaaagagtgg tctgttaatg gatttatgta gtggtcaaga atttagactt
cagagtcaaa taaacctata tcagtcctag tcctacagtt tactaattgt gagatgkcaa
                                                                      420
gcaagktttt gaactcctct aagcctctgk tttcttatct ataaattaat aaatgaatga
                                                                      480
atcgggttga gtgaataatt aagtaaaatc ttaagacata ctagttattg gaactgngaa
                                                                      540
actgggtttt ttgggaatgg gtttcacatt tgggaagtng aaataccact ttctaaaggt
                                                                      600
ctggtttatc tcaaatctct atccaggcct aa
                                                                     632
<210> 507
<211> 1433
<212> DNA
<213> Homo sapiens
<400> 507
ggcagagcac ttatgtkttt ggcattctcc gtcatcattc tggccggggc gggcagttct
                                                                       60
aggagttgga actcagtcct ggtggaaaag gaagtcgtgg agggagggct agggccgtgg
                                                                      120
gggaactgct ctgctgagcc tcttcctcac ctgctgcttc ctaggactaa cctgaaggct
                                                                      180
                                                                      240
aaggtaccag gctgaagtca gtgctcagaa aaccaatcgt cattctttgg ggtttttttt
cttgaagagc cactttetet ttacettgtt ctageetgtt ggaggtaggg tttetgeaat
                                                                      300
tecaaaggee gtacacagee teteaceate agaceaettt taaggetet tegtteatae
                                                                     360
                                                                      420
ctagctcgaa gattcacttc ctcaggaagc cattttagtt acaaatctgg gaaaacttaa
aatgctttca ttgtgccatg ttttctgttg cagcttcagt accgtaccta gtggtcaggc
                                                                      480
atacttacaa gtttcttttt acagtaaccc cttgtggaca tctaataaat ggtcattatt
                                                                      540
                                                                      600
ttttagtact agtttgtttt cctgaacact gtaagatctg tgactgacgt ttgatacctt
                                                                      660
aaagcagtgc catataataa ctacccacta tttgttcttt atttctgtca gataaaaatg
ttctatgtag tgtctacagt cattttttt ttaactagaa tttagatttg gaagtagttt
                                                                      720
ttctattagt tgatttgcat gaaatacaaa attaggaaa ggcttattcc acctcaacct
                                                                     780
```

```
840
agttgaacta ttaatgattt ttttttttt ttgaggattt gggctctttc tagatagaaa
                                                                    900
atcaccctga acttctagct ttgcattgtg aagtgagcat catgaagatg agaaaatgtt
gggagatcat ttttgcaaag ggcataatag tcggcattca gatatgagtt aactgcagag
                                                                    960
                                                                   1020
ggaaaattgc aagctgtcat gttggccttg ttcctctcaa ccttctggta acctaacaag
                                                                   1080
ctcctacagg ttgtatgtga aattgcaaga tgattatata gccctgttga atttacaacc
                                                                   1140
agatettget tteaaaceat tattageeaa gggtttgatt ceacacetgt gtteatggat
tttttggtat tagacattgc tgtaactctgttttcacttt ttcatctgtt atcttggctc
                                                                   1200
acttaaqqqa qaaqqtatca qcaqcctagq accacttqqt ttctqtttt atqtttcata
                                                                   1260
gttcatggct gataaaaatt acctgtcctt aggccgagtg cagtgcctca cacctgtaat
                                                                   1320
cccaqcactt tqqqaqqccq aqqtqaqtaq atcacctqaq atcaqqaqtt cgagaccagc 1380
                                                                   1433
<210> 508
<211> 1369
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1351)..(1351)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1353)..(1354)
<223> n equals a,t,g, or c
<400> 508
gggcgaaggc gatgacaaag aagagtctgt tgaaaaactg gactgtcatt attcaggtca
                                                                     60
                                                                    120
tcatcctcag ccagcatctt tttgcacatt tgggagccgg cagataggaa gaggctatta
                                                                   180
cgtgtttgac tccaggtgga atcgacttcg ctgcgccctc aacctcatgg $gagaagca
tetgaatgea eagetatggr agaaaateee accagtgeee agtaceaeet eacceatete
                                                                    240
cacacgtatt cctcaccgga caaactctgt gccgacatca caatgtggag tcagctatct
                                                                    300
                                                                    360
ggcagcagcc accgtctcta catccccagt cctgctctca tctacctgca tctccccaaa
                                                                    420
tagcaaatcg gtaccagete atggaaceae actaaatgea eageetgetg etteagggge
gatggatcct gtgtgcagta tgcaatccag acaagtgtcc tcttcatcct catccccttc
                                                                    480
                                                                    540
cacgccctct ggcctttcct cggttccttc ctcccccatg tccaggaaac ctcagaaatt
gaaatccagc aaatctttga ggcccaagga gtcttctggt aacagacta actgtcaaaa
                                                                   600
tgccagtagc agtaccagtg gcggctcagg aaagaaacgc aaaaacagtt ccccactgtt
                                                                    660
ggttcactct tectectect ettectecte etectettet teteatteca tgggagtett
                                                                    720
ttaggaaaaa ctgtgtggct cactctgggc ctccctaccc ctcaacggta acatcttccc
                                                                    780
                                                                    840
atagcatcgg cctcaactgt gtgacgaata aagcaaatgc ggtgaacgtc cggcatgacc
agtcagggag gggcccccc accgggagcc ctgctgaatc catcaagagg atgagtgtga
                                                                    900
tggtgaacag cagtgattct actctttctc ttgggccatt cattcaccag tccaatgaac
                                                                    960
tgcctgtcaa ctcccacggc agtttttccc actcacacactcctctagac aaactcatag
                                                                  1020
                                                                   1080
gaaagaaaag aaagtgctca cccagctcga gcagcatcaa caacagcagc agcaaaccca
                                                                   1140
caaaggttgc caaagtgcca gccrtgaaca atgtccacat gaaacacaca ggcaccatcc
                                                                   1200
caggggcaca aggactgatg aacagttccc tccttcatca ggtaggaaat ggactgtgag
ccccatggga atgcccattt cttctccctt aagatctttt gtcagctcag aaatgtgttt
                                                                   1260
                                                                   1320
ggttgggttg gttggttggt ttgtaaacag atattcagct tcatggtgtc ttcttaaaaa
aaaaaaaaa aaaaaaaaam cycggggttc ntnnaaaggg gcccggggg
                                                                   1369
<210> 509
<211> 1598
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc feature
<222> (1067)..(1067)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (1069)..(1069)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (1577)..(1577)
<223> n equals a,t,g, or c
<400> 509
aggaaagaac aaaggttatt tcctggagaa aagacaattt attcaacacc aacragggac
                                                                       60
                                                                      120
tcatcatatg ggcacaactc tggtgtcctt ctatggagaa aacctcaagt aaagttttat
                                                                      180
tctgcctttr aaaatgcttc caaaagtaga ccctgtcccc acacaggtca agactacaga
gaaggetttg tagaaatgtg teacetatgt acaeetgeta ettacaeatt teetettttg
                                                                      240
qaaaaatqag atacttagaa taacargaaa attaagacat actggcctgg tgccagcaga
                                                                      300
                                                                      360
tggcttttct atagacaaac taggttagtg tggaagatat aggttaaaat aaactatgct
                                                                     420
gttttattta tcttcccaac ctgattggca gctagacttt tttagggtct ætttaatgg
ccctqttttt ttcattatta tatttaatga tagggcagga tttcgtatgc aagctcttgt
                                                                      480
ttctcaggct gcctgcagaa gaagtcgcta taaattatct gttgtctaca tggtacaagg
                                                                      540
                                                                      600
cccattgact catctgatgc ttgttttgtt aatttcttta atatttttat cacggggcag
                                                                      660
tgggagggct tgggctttta gccacagctg ttttaagact tctgatctcc tgccctgcag
                                                                      720
gaataggtgg gaagtcattg aatttttaca ctatagtaat ttgcattccc acataagttt
                                                                      780
gagtgttacg aaaacattcc tttaaaggga tctgtgctac acaaaatatg ccaggacctc
acagacaaag ccattgctag aaatgtcatt ccaatgatca gatctgaaa caggctgcca
                                                                     840
taaccacttt tccttcttgt agactcagct cacctgtata tttaaactgt tcttggcatc
                                                                      900
                                                                      960
ttgaaacacc tatttctact caggtactca ttgtcctgtt actgattcac ctttctgatc
cttttcaacc agttttcccc caagggggga aattttactt aacctctagt atttgaacaa
                                                                     1020
ctcaatattt gaattgttgc cccatttgct tttacctgta ctgtatncnt ggtcatctca
                                                                     1080
aatggcgtct aaacccagct actttgcatt ccaqaagttt ccattccctc caattccacc
                                                                     1140
                                                                     1200
taatttttca tetgteetag ttaetggete tttetteatg tettatttet ettgetttgg
gagettaaaa gattttacaa gaeetaattt tgggtteetteettggagee atagttaeee
                                                                    1260
                                                                     1320
tgccaagaag agtagaaaat gggttcaact cctgtttcgc tccaccaaca cctctgtgag
                                                                     1380
tctcatcatc agctgagcga tgatgcctta caggttgcat agcactggaa ctttcctaga
                                                                     1440
gtaacggctc tgctgccagg gtttctctgg gctcattctt ccactgactt aattatgatc
tatgcctaac agagccccag tacaactatt ttgcagaatg gctgttaccc tagaattact
                                                                     1500
                                                                     1560
atagcacata ttgagatata gttgtactcc ctagtagata ggaactgacc ccaacaataa
                                                                     1598
actttgataa taaaganaaa aaaaaaaaaa actcgtag
<210> 510
<211> 530
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (517)..(517)
<223> n equals a,t,g, or c
<400> 510
                                                                       60
gcctggcaga gagactctga aatgagggat tagaggtgtt caaggagcaa gagcttcagc
ctgaagacaa gggagcagtc cctgaagacg cttctactga gaggtctgcc atggcctctc
                                                                      120
```

```
180
ttggcctcca acttgtgggc tacatcctag gccttctggg gcttttgggc acactggttg
                                                                      240
ccatgctgct ccccagctgg aaaacaagtt cttatgtcgg tgccagcatt gtgacagcag
                                                                      300
ttggcttctc caagggcctc tggatggaat gtgccacaca cagcacaggc atcacccagt
                                                                      360
qtqacatcta taqcaccctt ctqqqcctgc cqctqacat ccaggctgcc caggccatga
                                                                      420
tggtgacatc cagtgcaatc tcctccctgg cctgcattat ctctgtggtg ggcatgagat
gcacagtett etgecaggaa teeegageea aagacagagt ggeggtagea ggtggagtet
                                                                      480
ttttcatcct tggaagcctc ctgggattca ttcctgntgc ctggaatctt
                                                                     530
<210> 511
<211> 1046
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (14)..(14)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (33)..(33)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (441)..(441)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (460)..(460)
<223> n equals a,t,g, or c
<400> 511
                                                                        60
qaqaaqtcaq cctnqcaqaq agactctgaa atnagggatt agaggtgttc aaggagcaag
agcttcagcc tgcaagacaa gggagcagtc cctgaagacg cttctactca ccacqgtgc
                                                                     120
                                                                      180
ctgacagcat gaaatttgag attggagagg ctctttactt gggcattatt tcttccctgt
                                                                       240
tctccctgat akctggaatc atcctctgct tttcctgctc atsccagaga aatcgctcca
actactacga tgcctaccaa gcccaacctc ttgccacaag gagctctcca aggcctggtc
                                                                       300
aacctcccaa agtcaagagt gagttcaatt cctacagcyt gacagggtat gtgtgaagaa
                                                                      360
ccaggggcca garctggggg ktggctgggt ctgtgaaaaa cagtggacag caccccgagg
                                                                       420
ccacaggtga gggacattac nactggatcg tgtcagaagn tgctgctgag gatagactga
                                                                       480
                                                                     540
ctttqqccat tqqattqaqc aaaqqcaqaa atgggggcta gtgtaacagcatgcaggttg
                                                                       600
aattqccaaq qatqctcqcc atqccaqcct ttctgttttc ctcaccttgc tgstcccctg
                                                                       660
ccctaagtcc ccaaccctca acttgaaacc ccattccctt aagccaggac tcagaggatc
                                                                      720
cctttgccct ctggtttacc tgggactcca tccccaaacc cactaatcac atcccactga
ctgaccctct gtgatcaaag accctctctc tggctgaggt tggctcttag ctcattgctg
                                                                      780
gggatgggaa ggagaagcag tggcttttgt gggcattgct ctaacctact tctcaagctt
                                                                      840
ccctccaaag aaactgattg gccctggaac ctccatccca ctcttgttat gactccacag
                                                                       900
tgtccagact aatttgtgca tgaactgaaa taaaaccatc ctaggtatc cagggaacag
                                                                      960
                                                                      1020
aaagcaggat gcaggatggg aggacaggaa ggcagcctgg gacatttaaa aaaaaaaaa
                                                                     1046
aaaaaactcg aggggggcc cggtac
<210> 512
<211> 819
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc feature
<222> (786)..(786)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (819)..(819)
<223> n equals a,t,g, or c
<400> 512
aattcggcac gagctcaaag agtaagaatc caagtgtgtg acattacata gctttgcatc
                                                                       60
tatggaaacc taaatcataa ttgtttccac tgcccaata tgttcctttt cataacattt
                                                                     120
actattctgg ctatatttat catagaacct aggaacctta gagttgacct gaatctaatt
                                                                      180
                                                                      240
aaatttcaga cctcctggcc aaagacccta gtggaagagc aaaactaaat caacatatta
ccaatctcaa gtatttctct gaggacccag accactgact ttttgttgtc attttcaggt
                                                                      300
tgatcctata actgtatgtt ctacaatatc tgtgctccac cagctcagtg aggaatcaac
                                                                      360
ggaatatcaa aagtaaatat tggtcaccat ataccttttg gtactagtct acgaaataat
                                                                      420
tggctgagga actgtttcat attaaagaaa agctaaaagc aatgtgtgat cttagattag
                                                                      480
acctatgatt ggaatgtatg tatattttat atæaaaata ttgaggaaat tgacaaaatt
                                                                     540
                                                                      600
taaatacaga atatggatta gataatagga atgtatcaag gtcaatattt aaaaagataa
tttcaacttt tattttattc agtgggtaca tgtgcagact ttgttttaca tagtacccaa
                                                                      660
cagtttttca acgcttatcc cccaccctct agtaatctgc agwgwctatt attgycatct
                                                                      270
tcgtggctat tgtacatggg atccatactt gattttgctc tcaacatgaa cattattggt
                                                                      780
gtaganaaat gccactaagt tttkgtacgt tggcttttn
                                                                      819
<210> 513
<211> 501
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)..(2)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (12)..(12)
<223> n equals a,t,g, or c
<400> 513
                                                                       60
nnccccccaa tnatatttt ccaaattaat tccaacatag gaaggattcc accttcctag
                                                                      210
tatgttttca aattgtttca aacctgacct ctttttgatt gctctacctt ccaaaagaaa
agaagggaac actaattttc ttycctgatt tacttcattg ttttcttctg ttagattaac
                                                                      180
tttacctata aaagattgtc tcttgacttt atatatata atatgtgtgt gtgtgtgtg
                                                                      240
gtgtgtgtgt gtgtgtgt gtgtgtgtat ttgaagagga catgtgcctc cataaaagga
                                                                      300
                                                                      360
aataaaatga gagaatacat tattgattt gtgaaatcaa aatatttgaa ttatggtttc
tcaatattca aaaactcttg cagtttctgt acttatttct tctgatgcat agagtttcgg
                                                                      420
                                                                      480
ggactacata tgtttcacaa ccaaagatat ccacttgaaa taaaaacatt ataaagttaa
                                                                     501
aaaaaaaaa aaaaactcga g
<210> 514
<211> 1162
<212> DNA
<213> Homo sapiens
```

```
<400> 514
ggcacgaggc gccccggact cttctcagtt gagagtgcgg ttcctgggca ggtttccaca
                                                                      60
ccagttcctt tccgcgtcct tcggccctgg ctctggctgc ctggcggagg tggggtagca
                                                                     120
tttgtcattt gcacactgct ggcttt&ct ttggggctgc accccgaggc aacaaatgca
                                                                     180
ggatgctctg tcacccacat gtccaccacc atctggtttg ccttttggct actttgactt
                                                                     240
tctccttaaa tgcttcctgt gctgagcaaa cattccacag ccagcagagc aatggagagt
                                                                     300
tcatggccac tcttcccagt atcagcaagc aatttggggt gatcgtttgg aagcctcaga
                                                                    360
ggaaagatgt catcaggctt cctgtggctt tgtccttcag catggggctc ggcttgcttt
                                                                     420
cacctgcctt aggaagattt ctggcttctg agctctgata tggggagaag ataagggctg
                                                                     480
ggatcittga gictgcccct agctgggtat gtgcgtccgg tgtgcgggcc ttggagtttt
                                                                     540
tggtaatgac tcacttgtgc tcttctggg atctgtctcc ctcccacatg accccgtggg
                                                                     600
gtccctgaat gactgtttta gagtacccat gtgggttccc tgagtcacag caggggatgt
                                                                     660
ttaataagga ggttagcact gagcttgggg acgtgctgtc acaccagcag gacgctgcag
                                                                     720
gaaggagcag gctacttcct ttcttgacgt gcaaataact cgtataggct abcaacagg
                                                                    780
cttataagtt aaaagggcta ccgctcggcc ccttggggat tccatcccct cctctgtaac
                                                                     840
ttggagatgt ttgtttctgc tgcagactca gagggttgcg atgaagagtg gtgggactga
                                                                     900
gttgagaagc ttatcccttc gctgggtggg aggtttctaa ttgccctgtt ctttggggga
                                                                     960
tccttaagtc cagcttccag gtgggggcag cgataggacc aagttctcct agtagtctct
                                                                    1020
gggaagccac ttgagggaag ctgccggtca tgcccatgca cccattggtc ttctgccagc
                                                                    1080
aggccctgta ggtcgtgcca tgttccatgt ccttctgggt tcttggggga gaaggaagct
                                                                    1140
gttgaaaaaa aaaaaaaaa aa
                                                                   1162
<210> 515
<211> 1012
<212> DNA
<213> Homo sapiens
<400> 515
acgcgtccgg aagtgggaga ggtcgcagcc ccgccttctc tacacaggaa agctcagtgg
                                                                      60
cccccaagcc aggatgtccc aagcttgggt ccccggcctc gcgcccacct tgctgttcag
                                                                     120
cctgctggct ggccccaaa agattgcagc caaatgtggt ctcatccttg cctgccccaa
                                                                     180
aggattcaaa tgctgtggtg acagctgctg ccaggagaac gagctcttcc ctggccccgt
                                                                     240
gaggatette gteateatet teetggteat eetgteegte ttttgeatet gtggeetgge
                                                                     300
taagtgcttc tgtcgcaact gcagagagcc ggagccagac agcccgtgg attgccgggg
                                                                    360
gcccctggaa ctgccctcca tcatccccc agagagggtg attctgaagc ccagcctggg
                                                                     420
cccaactccc acagagccac cccctcccta cagcttcagg cctgaagaat ataccgggga
                                                                     480
tcagaggggc attgacaacc cggccttctg agtcacctcc tgcctggaat cttgccatca
                                                                     540
gcaacctcct ccccagtgcc tcctggatca agctagagac tgctggcacc ccaggaatgt
                                                                     600
ccctgcccat cctgccgtgt ctctgttcat tcttggattt aacttattac tttttctgct
                                                                     660
tctgtttcca ccccagctgc ctctcttgtc ctgagggtta ggctggagtg acagtttccg
                                                                     720
cccaccccc agcccaagaa agaggctgcc ggaaagaaaatgctgaccat tggaggtgcc
                                                                    780
caacagtaga atgggctact gtgaggggta gtaagagccc catttctgga ggtatgcaaa
                                                                     840
tettgaetgg acagecaget etgagatttt atcagggeae ttetataeet gtgggaeatt
                                                                     900
ggactggatg agccctgagc cagcttccac tcctacctga atagagaact cactgcaccc
                                                                     960
1012
<210> 516
<211> 754
<212> DNA
<213> Homo sapiens
<400> 516
ttaaccctca ctaaagggaa caaaagctgg agctccaccg cggtggcggc cgctctagaa
                                                                      60
ctagtggatc ccccgggctg caggaattcg gcacgagcactgcagctccc tgagcactct
                                                                    120
ctacagagac geggaceeca gacatgagga ggeteeteet ggteaceage etggtggttg
                                                                    180
tgctgctgtg ggaggcaggt gcagtcccag cacccaaggt ccctatcaag atgcaagtca
                                                                     240
```

```
300
aacactggcc ctcagagcag gacccagaga aggcctgggg cgcccgtgtg gtggagcctc
                                                                   360
cggagaagga cgaccagctg gtggtgctgt tccctgtcca gaagccgaaa ctcttgacca
                                                                   420
ccqaggagaa gccacgaggc accaaggcct ggatggagac cgaggacacc ctgggccgtg
                                                                   480
tcctqaqtcc cgagcccgac catgacagcc tgtaccaccc tccgcctgag gaggaccagg
                                                                  540
gcgaggagag gccccggttg tgggtgatgc caaatacca ggtgctcctg ggaccggagg
                                                                   600
aagaccaaga ccacatctac caccccagt aggggctcca ggggccatca ctgcccccgc
cctgtcccaa ggcccaggct gttgggactg ggaccctccc taccctgccc cagctagaca
                                                                   660
720
                                                                   754
aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaa
<210> 517
<211> 667
<212> DNA
<213> Homo sapiens
<400> 517
                                                                    60
ggcacgagca ctgcagctcc ctgagcactc tctacagaga cgcggacccc agacatgagg
                                                                  120
aggeteetee tggteaceag cetggtggtt gtgetgetgt gggaggeagg tgeagteeea
gcacccaagg tccctatcaa gatgcaagtc aaacactggc cctcagagca ggacccagag
                                                                   180
aaggcctggg gcgcccgtgt ggtggagcct ccggagaagg acgaccagct ggtggtgctg
                                                                   240
                                                                   300
ttccctgtcc agaagccgaa actcttgacc accgaggaga agccacgagg caccaaggcc
                                                                   360
tggatggaga ccgaggacac cctgggccgt gtcctgagtc ccgagcccga ccatgacagc
ctgtaccacc ctccgcctga agaggaccag ggcgaggaga ggccccggtt gtaggtgatg
                                                                   420
ccaaatcacc aggtgctcct gggaccggag gaagaccaag acacatctac cacccccagt
                                                                   480
                                                                  540
aggggctcca ggggccatca atgcccccgccctgtcccaa ggcccaggct gttgggactg
                                                                   600
ggaccetece taccetgece cagetagaca aataaacece ageaggeegg aaaaaaaaa
                                                                   660
667
aaaaaaa
<210> 518
<211> 2025
<212> DNA
<213> Homo sapiens
<400> 518
                                                                    60
qcccqaqagq cccggttcct ttaggccgcc tgcccgcctc cagctctcgg ggtcggctcc
                                                                   120
aggaggcgcc ctcaggagag gggcgggcgc tctattccag agaccgagtg gcagggcggc
                                                                   180
cactgtggcg gggctctttc cccgtttcc ctcagctacc cctcagctcc ggtagtcgcc
agtccggggt cgtcgccgtt tggggcggga gctgctcggc cccgccgccg tccccgtcgc
                                                                   240
cgcttccggg tccaggcccc tcgggccgcc tgccgccgtc atgaggctgc gggtgcggct
                                                                   300
tctgaagcgg acctggccgc tggaggtgcc cgagacggag ccgacgctgg ggcatttgcg
                                                                  360
ctcgcacctg aggcagtccc tgctgtgcac ctgggggtac agttctaata cccgatttac
                                                                   420
                                                                   480
aattacattq aactacaagg atcccctcac tggagatgaa gagaccttgg cttcatatgg
                                                                   540
gattgtttct ggggacttga tatgtttgat tcttcaagat gacattccag cgcctaatat
                                                                   600
accttcatcc acagattcag agattcttc actccagaat aatgagcaac cctctttggc
                                                                   660
caccagetee aateagaeta geatreagga tgaacaacea agtgatteat tecaaggaea
                                                                   720
ggcagcccag tctggtgttt ggaatgacga cagtatgtta gggcctagtc aaaattttga
agctgagtca attcaagata atgcgcatat ggcagagggc acaggtttct atcctcaga
                                                                  780
acccatgctc tgtagtgaat cggtggaagg gcaagtgcca cattcattag agaccttgta
                                                                   840
                                                                   900
tcaatcagct gactgttctg atgccaatga tgccttgata gtgttgatac atcttctcat
gttggagtca ggttacatac ctcagggcac cgaagccaaa gcactgtcca tgccggagaa
                                                                   960
                                                                  1020
gtggaagttg agcggggtgt ataagctgca gtacatgcat cctctctgcg agggcagctc
                                                                  1080
cgctactctc acctgtgtgc ctttgggaaa cctgattgtt gtaaatgcac tgaacctacc
                                                                  1140
agatgtattt gggttggtcg tcctcccatt ggaactgaaa ctacggatct tccgacttct
                                                                 1200
ggatgttcgt tccgtcttgt ctttgtctgc ggtttgtcgt gacctctt# ctgcttcaaa
tgacccactc ctgtggaggt ttttatatct gcgtgatttt cgagacaata ctgtcagagt
                                                                  1260
                                                                  1320
tcaagacaca gattggaaag aactgtacag gaagaggcac atacaaagaa aagaatcccc
```

```
1380
gaaagggcgg tttgtgatgc tcctgccatc gtcaactcac accattccat tctatcccaa
ccccttgcac cctaggccat ttcctagctc ccgccttcct ccaggaatta tcgggggtga
                                                                   1440
atatgaccaa agaccaacac ttccctatgt tggagaccca atcagttcac tcattcctgg
                                                                   1500
                                                                   1560
tectggggag acgeecagee agttteetee actgagacea egetttgate eagttggeee
acttccagga cctaacccca tcttgccagg gcgaggcggc cc@atgaca gatttcctt
                                                                  1620
                                                                   1680
tagacccagc aggggtcggc caactgatgg ccggctgtca ttcatgtgat tgatttgtaa
tttcatttct ggagctccat ttgtttttgt ttctaaacta cagatgtcaa ctccttgggg
                                                                   1740
tgctgatctc gagtgttatt ttctgattgt ggtgttgaga gttgcactcc cagaaacctt
                                                                   1800
ttaagagata catttatagc cctaggggtg gtatgaccca aaggttcctc tgtgacaagg
                                                                   1860
ttqqccttqq qaataqttqq ctqccaatct ccctqctctt qqttctcctc taqattqaaq
                                                                   1920
                                                                   1980
tttgttttct gatgctgttc ttaccagatt aaaaaaaagt gtaaattaaa aaaaaaaaa
                                                                  2025
aaaaaactyg aggggggccc sggacccaat tsccctaag ggggc
<210> 519
<211> 1020
<212> DNA
<213> Homo sapiens
<400> 519
                                                                     60
aaactagggg aaaatgtagc caacatatac aaagatcttc agaaactctc tcgcctcttt
aaagaccagc tggtgtatcc tcttctggct tttacccgac aagcactgaa cctaccagat
                                                                    120
gtatttgggt tggtcgtcct cccattggaa ctgaaactac ggatcttccg acttctggat
                                                                    180
gttcgttccg tcttgtcttt gtctgcggtt tgtcgtgacc tctttactgc ttcaaatgac
                                                                    240
                                                                    300
ccactcctgt ggaggttttt atatctgcgt gattttcgag acaatactgt cagagttcaa
gacacagatt ggaagactgt acaggaagag gcacatæaa agaaaagaat ccccgaaagg
                                                                    360
                                                                    420
gcggtttgtg atgctcctgc catcgtcaac tcacaccatt ccattctatc ccaaccctt
                                                                    480
gcaccctagg ccatttccta gctcccgcct tcctccagga attatcgggg gtgaatatga
                                                                    540
ccaaagacca acacttccct atgttggaga cccaatcagt tcactcattc ctggtcctgg
ggagacgccc agccagtttc ctccactgag accacgcttt gatccagttg gcccacttcc
                                                                    600
aggacctaac cccatcttgc cagggcgagg cggccccaat gacagatttc cctttagacc
                                                                    660
                                                                    720
cagcaggggt cggccaactg atggccggct gtcattcatg tgattgattt gtaatttcat
ttctggagct ccatttgttt ttgtttctaa ætacagatg tcaactcctt ggggtgctga
                                                                    780
tctcgagtgt tattttctga ttgtggtgtt gagagttgca ctcccagaaa ccttttaaga
                                                                    840
gatacattta tagccctagg ggtggtatga cccaaaggtt cctctgtgac aaggttggcc
                                                                    900
ttgggaatag ttggctgcca atctccctgc tcttggttct cctctagatt gaagtttgtt
                                                                   960
1020
<210> 520
<211> 3306
<212> DNA
<213> Homo sapiens
<400> 520
ccacqcqtcc qqcccaqqqc tqtctqtctc caaaqcccaa ccataactca catcccatt
                                                                     60
ccagctcctc tgggtgagtc tgttccccct cagcctcact ttccttatcc tgtcaaatga
                                                                    120
aggatttgga atgacttaag ttattcaagc aacaaacact tactgaattg tcttgccact
                                                                    180
                                                                    240
tccagggtga cattatggag ttctgtgatt ctgcaagagg ccagagggga caaggtcaag
                                                                   300
tgggtgttca cctggcccct catcttcctc ctgtgcgtca ccattcccaa ctgcagcaag
ccccgctggg agaagttctt catggtcacc ttcatcaacg ccacgctgtg gatcgctgtg
                                                                    360
                                                                    420
ttctcctaca tcatggtgtg gctggtgact attatcggat acacacttgg gatcccggat
                                                                    480
gtcatcatgg gcattacttt cctggcagca ggacaagtgt tccagactgc atggccagcc
taattgtggc gagacaaggc cttggggaca tggcagtctc caacaccata gaagcaacgt
                                                                    540
gtttgacatc ctggtaggac ttggtgtacc gtggggcctg cagaccatgg ttgttaatta
                                                                    600
                                                                    660
tggatcaaca gtgaagatca acagccgggg gctggtctat tccgtggtcc tgttgctggg
ctctgtcgct ctcaccgtcc tcggcatcca cctaaacaag tggcgactgg accggagct
                                                                   720
gggtgtctac gtgctggttc tctacgccat cttcttgtgc ttctccataa tgatagagtt
                                                                    780
taacgtcttt accttcgtca acttgccgat gtgccgggaa gacgattagc gctgagtcgc
                                                                    840
```

```
ggcccctggg agctgatctg gacaccctgt gacactggcg tcctcctctc ccctctcc
                                                                   900
                                                                  960
cccaccacag gtctctcctg cataggcagc cactgtccgt tctttcacac actggaagga
                                                                  1020
agagccatcg tggtctttgt ctggccacag ccaagctgct gggcatcctc ctcctccttg
gagttccacc cctgcaaggc tggatttggg ggccattatc tgagcagctt caaagacccc
                                                                  1080
1140
aggactictg catgcagttt gtctttctgt tctgcaggca gcttcagaat tgaggtcatt
                                                                  1200
tgtgagcaca agatctcata gggcaggtgc aaaataggaa tgttgttctc aagtgtcacc
                                                                  1260
tccagcccag aggtggttcc ttaggcagca tgtgctcctg ggagcctctg acttttgctg
                                                                  1320
gaagcaccca cagtttggaa ggggcaagac ctcaacctgt tggggtttag ggcccatgat
                                                                 1380
ggcagacatt ctaccccttt tcctggaaaa actggaagaa tgaaaataat tttttctgt
                                                                  1440
                                                                  1500
qqaaqaqaq aaatqagtga atattcttct cacttttatt gatgcattca gagaataagc
aatgaaatat taaaaaatga aacatcatat aggtcatcat acttgaaat tatcattcca
                                                                 1560
tatgaaagga tcatgataca caccaaaaaa gtaatgatcg taaagacaca aatcctctgt
                                                                  1620
                                                                  1680
atgccatctt gcattggcac tgaggtgttt ggtttggaat agggaaaaag agacaggatc
                                                                  1740
tcqctqtqtt ccccaggtag gtcttgaact cctggcctca agtgatcctc ctgccttgac
ctcccaaagt gctggattac aagcgtgagc ccctgcaccc ggcccaagca gttgcttctt
                                                                 1800
tttttctctt tttttttt tttgagatgg agcctcactc tgttgcccag gctggagtgc
                                                                  1860
agtggcgcga tctccactca ctgcaagctc cgcctcccgg gttcatgcca ttctcctgcc
                                                                  1920
tcagcctccc gagtagctgg gactacaggc gcctgccaccacacccagct aattttttgt
                                                                 1980
atttttggta cagacagggt ttcaccgtgt tagccaggat ggtcttgatc tctgatctcg
                                                                  2040
qatccqccac cccqqcctcc aaagtgctgg attacaagcg tgagccaccg ggccccgcca
                                                                  2100
                                                                  2160
agcaqttgct tcttatgcaa catgttgggt gggacttgtc cacgggccag gccaataaaa
ttcttaatcc tgcagagagc agtaccctca tcaccccatc actggaaaac aaatgtttaa
                                                                  2220
                                                                  2280
gctatcaaga gagggaatgt gcagcttggt tctagatgca tggtttggag gatctacctt
ggcctaaagg gaatgtccca aacaacagag ccttctttgc tgcactccag aattctctac
                                                                  2340
                                                                 2400
acagaatttc ccaagtccat tcaggacaga cgcgagtcc tctttcaatg gaagaagaga
                                                                  2460
ggacttttcc cctcctgaaa aatgactgga gtgtgaacaa ggcagctctg ttttctaaa
                                                                  2520
taaqttqttc ttgtqaqttt tttctggcca ctgggcatct ctgccctcac ttttcatccc
                                                                  2508
tgccctctaa gctgcagacc ccatgaccac actgtctgct tccttgagct tcccgcacga
ggcttgcacc tgggggacct ggagaccctg cggacagaac tgtggctgag ccactgtggc
                                                                  2640
                                                                  2700
caactettgg ggagetecae agtgggggtt getggtetgt gaggetgagt etceatttea
                                                                  2760
gagcacacac tecetggeag ggegeeteeg eetgtgtete etgeeeagea geegeeagea
gggaatagtt gctggtgtct gagcacaaag agagctttga ttacctagag aggaaaaaagg
                                                                 2820
                                                                  2880
ctgtcagcca gatgcagcca ggcccagggg tagatacagg agttgctaag gaaggggccg
                                                                  2940
agccaggaga ggccaggcag atccacaaag cccaagggga tgcaggctgg gtgtggtttc
tgagggaacc taccaaatag caggtagatg gaatcagagg actcttgtgt cctgaaagaa
cctccttaaa aacaactaaa accaagaact tctggggctg ttcacacatt gttcaagtca
                                                                  3060
ccccaagatc gttctggcac gctgagctga acaccaccat ctttgttcat tctctcta
                                                                  3120
atgggcaaag caggatcatc gagttgaaaa gttgtaaata atgaggatat ttatcccgct
                                                                  3180
atttatttt tcaataactg tgæctcctg cactgtgaat gctctgtgac atgagattct
                                                                 3240
3300
                                                                  3306
aaaaaa
<210> 521
<211> 2194
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (441)..(441)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (987)..(987)
<223> n equals a,t,g, or c
```

```
<220>
<221> misc_feature
<222> (2034)..(2034)
<223> n equals a,t,g, or c
<221> misc feature
<222> (2041)..(2041)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (2121)..(2121)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (2169)..(2169)
<223> n equals a,t,q, or c
<220>
<221> misc feature
<222> (2184)..(2184)
<223> n equals a,t,g, or c
<400> 521
                                                                       60
ggcccagggc tgtctgtctc caaagcccaa ccataactca catccccatt ccagctcctc
tgggtgagtc tgttccccct cagcctcact ttccttatcc tgtcaaatga aggatttgga
                                                                      120
                                                                     180
atgacttaag ttattcaagc aacaaacact tactgaattg tcttgccact tccaggtga
cattatggag ttctgtgatt ctgcaagagg ccagagggga caaggtcaag tgggtgttca
                                                                      240
cctggcccct catcttcctc ctgtgcgtca ccattcccaa ctgcagcaag ccccgctggg
                                                                      300
agaagttett catggteace tteateameg ceaegetgtg gategetgtg tteteetaea
                                                                      360
tcatggtgtg gctggtgact attatcggat acacacttgg gatcccggat gtcatcatgg
                                                                      420
gcattamttt cctggcagca nggacaagtg ttccagactg catggccagc ctaattgtgg
                                                                      480
cgagacaagg ccttggggac atggcagtct ccaacacyat aaraagcaac gtgtttgaca
                                                                      540
tcctggtagg acttggtgta ccgtggggcc tgcagaccat ggttgttaattatggatcaa
                                                                     600
cagtgaagat caacagccgg gggctggtct attccgtggt cctgttgctg ggctctgtcg
                                                                      660
                                                                      720
ctctcaccgt cctcggcatc cacctaaaca agtggcgact ggaccggaag ctgggtgtct
acgtgctggt tctctacgcc atcttcttgt gcttctccat aatgatagag tttaacgtct
                                                                      780
ttaccttcgt caacttgccg atgtgccggg aagacgatta gcgctgagtc gcggcccctg
                                                                      840
ggagetgate tggacaccet gtgacactgg cgtcctcctc tecectectt cececaccae
                                                                      900
aggtctctcc tqcatagqca qccactqtcc qttctttcac acactqqaaq gaaqaqccat
                                                                      960
cqtqqtcttt gtctggccac aggccangct gctgggcatc ctcctctc ttggagttcc
acccctgsaa ggcygatttg ggggccatta tctgagcagc ttcaaagacc cctgarctgc
                                                                     1080
caaccacgga gatgtgccaa gcatctcatc tctcctgcac actttagtca gaaggacttc
                                                                     1140
tgcatgcagt ttgtctttct gttctgcagg cagcttcaga attgaggtca tttgtgagca
                                                                     1200
caagatetca tagggeaggt geaaaatagg aatgttgtte teaagtgtea eetecageee
                                                                     1260
                                                                     1320
agaggtggtt ccttaggcag catgtgctcc tgggagcctc tgacttttgc tggaagcacc
cacagtttgg aaggggcaag acctcaacct gttggggttt agggcccatg atggcagaca
                                                                     1380
                                                                    1440
ttctacccct tttcctggaa aaactggaag aatgaaaatmattttttct gtggaagaga
                                                                     1500
gaaaatgagt gaatatyctt ctcactttta ttgatgcatt cagagaataa gcaatgaaat
                                                                     1560
attaaaaaat gaaacatcat ataggtcatc atacttgaaa attatcattc catatgaaag
gatcatgata cacaccaaaa aagtaatgat cgtaaagaca caaatcctct gtatgccatc
                                                                     1620
ttgcattggc actgaggtgt ttggtttgga atagggaaaa agagacagga tctcgctgtg
                                                                     1680
                                                                     1740
ttccccaggt aggtcttgaa ctcctggcct caagtgatcc tcctgccttg acctcccaaa
gtgctggatt acaagcgtga gcccctgcac ccggcgccaa gcagttgctt ctttttttct
                                                                     1800
```

```
ctttttttt ttttttgaga tggagcctca ctcttttcc caggctggag tgcagtggcg
                                                                1860
cgatctccac tcactgcaag ctccgcctcc cgggttcatg ccattctcct gcctcagcct
                                                                 1920
cccgagtage tgggactaca ggcgcctgcc accacaccca gctaattttt tgtatttttg
                                                                 1980
gtacagacag ggtttcaccg tgttagccag gatggtcttg atctctgatc tcgngatccg
                                                                 2004
nccaccccgg ccttccaaag tgcttggatt acaagcgtga gccacccggg ccccgccaag
                                                                 2100
caagttgctt cttatgcaac natgttgggt tggggacttg gtccacgggg cccaggccca
                                                                 2160
ataaaaatnc tttaatccct gcanaagagg ccag
                                                                 2194
<210> 522
<211> 1315
<212> DNA
<213> Homo sapiens
<400> 522
acgcgtccgg acgccgccac ctccggaaca agccatggtg gcggctacgg tggcagcggc
                                                                  60
gtggctgctc ctgtgggctg cggcctgcgc gcagcaggag caggacttct acgacttcaa.
                                                                  120
ggcggtcaac atccggggca aactggtgtc gctggagaag taccgcggat cggtgtccct
                                                                 810
ggtggtgaat gtggccagcg agtgcggctt cacagaccag cactaccgag ccctqcagca
                                                                 240
gctgcagcga gacctgggcc cccaccactt caacqtqctc qccttcccct qcaaccaqtt
                                                                  300
tggccaacag gagcctgaca gcaacaagga gattgagagc tttgcccqcc gcacctacag
                                                                 360
tgtctcattc cccatgttta gcaagattgc agtcaccggt actggtgccc atcctgcctt
                                                                 420
caagtacctg gcccagactt ctgggaagga gcccacctgg aacttctgga agtacctagt
                                                                  480
agccccagat ggaaaggtgg taggggcttg ggacccaact gtgtcagtgg aggaggtcag
                                                                  540
accccagate acagegeteg tgaggaaget catectactg aagegagaag acttataace
                                                                 600
accgcgtctc ctcctccacc acctcatccc gcccacctgt gtggggctga ccaatgcaaa
                                                                  660
ctcaaatggt gcttcaaagg gagagaccca ctgactctcc ttcctttact cttatgccat
                                                                  720
tggtcccatc attcttgtgg gggaaaaatt ctagtatttt gattatttga atcttacagc
                                                                 780
aacaaatagg aactcctggc cætgagagc tcttgaccag tgaatcacca gccgatacga
                                                                 840
acgtcttgcc aacaaaatg tgtggcaaat agaagtatat caagcaataa tctcccaccc
                                                                 900
aaggettetg taaactggga ecaatgatta eeteataggg etgttgtgag gattaggatg
                                                                 960
aaatacctgt gaaagtgcct aggcagtgcc agccaaatag gaggcattca atgacattt
                                                               1020
tttgcacata aaccaaaaaa taacttgtta tcaataaaaa cttgcatcca acatgaattt
                                                                 1080
ccagccgatg ataatccagg ccaaaggttt agttgttgtt atttcctctg tattattttc
                                                                 1140
ttcattacaa aagaaatgca agttcattgt aacaatccaa acaatacctc acgatataaa
                                                                 1200
1260
1315
<210> 523
<211> 796
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (4)..(4)
<223> n equals a,t,g, or c
<400> 523
gganteetea ggegttettt agaaggteeg eetgeaggta eeggteegga atteeegggt
                                                                  60
cgacccacgc gtycggcaga cacaggcact tattcattca tctcattgaa aagctacgag
                                                                 120
ttggttcctt attgcctctc cataatagaa aaactcttta atgagctctc tttttgtttt
                                                                 180
tcaaatcaga tatgcaaæga agctcataac aatttttttt aaaaatgcaa aacaagaatc
                                                                 240
tccaattatg ggagcaaaat cttcagcttc tgggttcctg tctcactgag gaaatggatt
                                                                 300
tgaaatggca aggaggaaat gaggaggcaa actttcatgt ctattttagt tttccaatgc
                                                                 360
420
acagataacc tgtgtcttta aagtaaatgt atcttaaata agtaggactc ccataaatga
                                                                 480
ctacactttt tcaaaatatg actccccagc ttataacaag aataatagca aacatcactt
                                                                 540
```

```
600
tattaagcaa ttactatgta aaagacactt agtgcttagc acacactgga aatattgttg
                                                                  660
actggctata ttttccccag aaatcccatt tctgaaagcc tattacaaag aaataaaatc
                                                                   720
780
796
tgtaagtgca cacacg
<210> 524
<211> 734
<212> DNA
<213> Homo sapiens
<400> 524
                                                                    60
gctcgtgccg ctgctgggca ctgggagcag ggggcggcca aaggcagtgg gtgggcaggt
                                                                   120
ccatgcctcc cctggccccc cagctctgca gggcagtgtt cctggttcct atcttgctgc
tgctgcaggt gaagcctctg aacgggagcc caggccccaa agatgggagc cagacagaga
                                                                  180
                                                                   240
aaacgccctc tgcagaccag aatcaagaac agttcgaaga gcactttgtg gcctcctcag
                                                                   300
tgggtgagat gtggcaggtg gtggacatgg cccagcagga agaagaccag tcgtccaaga
cggcagctgt tcacaagcac tctttccacc tcagcttctg cttagtctg gccagtgtca
                                                                  360
tggttttctc aggagggcca ttgaggcgga cattcccaaa tatccaactc tgcttcatgc
                                                                   420
tcactcactg accetecete ecteetggge tecaggteae aacteecaaa ggagatgeag
                                                                   480
gcatggctct ctgcctctga tcaccatcac tgtatctcaa ggttcagcag cagagatacc
                                                                   540
agttgccatc agtgctaact gactgcctct ccaggttcgg agtttcatct cccagggcca
                                                                   600
                                                                   660
gagacagcag acceacatee ttetetecea caecteteet ggttttgtte aggacagcag
attagaggca ggaggcaatg acaataaaat aacgataaaa tcctgagaac aaaaaaaaa
                                                                   720
                                                                  734
aaaaaaaact cgag
<210> 525
<211> 1147
<212> DNA
<213> Homo sapiens
<400> 525
                                                                    60
ggcacgagac ccattgagca gaaggaggcc aggtgggaaa gctcctggga agagcagcca
                                                                   120
qactqqacac tgggctgctt gagtcctgag tcacaattca gaattcctgg gctccctggg
tgcattctat cattccagtt gaaagtttgc ttccttccag tcatgtggct cttcattcta
                                                                   180
                                                                   240
ctctccttgg ctctcatttc agatgccatg gtcatggatg aaaaggtcaa gagaagcttt
gtgctggaca cggcttctgc catctgcaac tacaatgccc actacaagaa tcaccccaaa
                                                                   300
                                                                  360
tactggtgcc gaggctattt ccgtgactac tgcaacaca tcgccttctc ccctaacagc
                                                                   420
accaatcatg tggccctgaa ggacacaggg aaccagctca ttgtcactat gtcctgcctg
                                                                   480
aacaaagaag acacgggctg gtactggtgt ggcatccagc gggactttgc cagggatgac
                                                                   540
atggatttta cagagctgat tgtaactgac gacaaaggaa cctggccaat gactttggtc
                                                                   600
tgggaaagac tatcaggcac aaaaccagaa gctgcaaggc tcccaaagtt gtccgcaagg
                                                                   660
ctgaccgctc caggacgtcc attctcatca tttgcatact gatcacgggt ttgggaatca
                                                                   720
tctctgtaat cagtcatttg accaaaagga ggagaagtca aaggaataga agggtaggca
                                                                  780
acactttgaa gcccttctcg cgtgtcctga &ccaaagga aatggctcct actgaacaga
                                                                   840
tgtgactgaa gattttttta atttagttca taaagtgatg ctacaacaga ataatcacca
                                                                   900
tgacaactgg ccccacacct cagagactga ttctgatctc ccaggaattc tgaaggtccc
tctatccttg acaacaatca tttgcagcca ggtagcaacg gcagtagtca gaggagctat
                                                                  960
gatagaccac acccaagcaa ggctgccctc aaataacatc tcaagatctt agttcttatg
                                                                  1020
                                                                  1080
cattccatca gtcagaagtg aagaagaggt ggagaatctg gattggggac caggaaatca
                                                                  1140
cttgtatttt gttagccaat aaattcctag ccagtgttga atgaaaaaaa aaaaaaaaa
                                                                  1147
aaaaaaa
<210> 526
<211> 1134
<212> DNA
<213> Homo sapiens
```

```
<220>
<221> misc feature
<222> (418)..(418)
<223> n equals a,t,g, or c
<220>
<221> misc_feature
<222> (803)..(803)
<223> n equals a,t,g, or c
<220>
<221> misc feature
<222> (816)..(816)
<223> n equals a,t,g, or c
<400> 526
                                                                     60
acccattgag cagaaggagg ccaggtggga aagctcctgg gaagagcagc cagactggac
actgggctgc ttgagtcctg agtcacaatt cagaattcct gggctccctg ggtgcattct
                                                                    120
atcattccag ttgaaagttt gcttccttcc agtcatgtgg ctcttcattc tactctcctt
                                                                    180
ggctctcatt tcagatgcca tggtcatgga tgaaaaggtc aagagaagtt tgtgctggac
                                                                    240
acggettetq ceatetgeaa etacaatgee caytacaaga atcaceecaa atactggtge
                                                                    300
cgaggytatt tccgtgayta ctgcaacatc atcgccttct cccctaameg caccaatcat
                                                                   360
gtggccctga aggacacagg gaaccagctc attgtcacta tgtcctgcct gaacaaanaa
                                                                    420
gacacgggct ggtactggtg tggcatccar cgggactttg cmagggatga catggatttt
                                                                    480
                                                                    540
acagagetga ttgtaactga egacaaagga accetggeca atgaettttg gtetgggaaa
                                                                    600
gacctatcag gcaacaaaac cagaagctgc aaggctccca aagttgtccg caagctgacc
                                                                    660
gctccaggac gtccattctc atcatttgca tactgatcac gggtttggga atcatctctg
taatcagtca tttgaccaaa aggaggagaa gtcaaaggaa tagaagggta ggcaacactt
                                                                    720
                                                                   780
tgaagccctt ctcgcgtgtc ctgactccaa aggaaatggc tctactgaa cagatgtgac
                                                                    840
tgaagwtttt tttaatttag ttncataaag tgatgnctac aacagawtaa tcacccatga
                                                                    900
caactggccc cacacctcag agactgattc tgatctccca ggaattctga aggaccctct
atccttgaca acaatcattt gcagccaggt agcaacggcr gtagtcagag gagctatgat
                                                                    960
agaccacacc caagcaaggc tgccctcaaa taacatctca agatcttagt tcttatgcat
                                                                   1020
tccatcagtc agaagtgaag aagaggtgga gaatctkgat tggggaccag gaaatcactt
                                                                   1080
                                                                   1134
<210> 527
<211> 207
<212> PRT
<213> Homo sapiens
<400> 527
Met Ile Lys His Val Ala Trp Leu Ile Phe Thr Asn Cys Ile Phe Phe
Cys Pro Val Ala Phe Phe Ser Phe Ala Pro Leu Ile Thr Ala Ile Ser
                                25
            20
Ile Ser Pro Glu Ile Met Lys Ser Val Thr Leu Ile Phe Pro Leu
Pro Ala Cys Leu Asn Pro Val Leu Tyr Val Phe Phe Asn Pro Lys Phe
Lys Glu Asp Trp Lys Leu Leu Lys Arg Arg Val Thr Lys Lys Ser Gly
                    70
                                        75
```

Ser Val Ser Val Ser Ile Ser Ser Gln Gly Gly Cys Leu Glu Gln Asp 85 90 95

Phe Tyr Tyr Asp Cys Gly Met Tyr Ser His Leu Gln Gly Asn Leu Thr 100 105 110

Val Cys Asp Cys Cys Glu Ser Phe Leu Leu Thr Lys Pro Val Ser Cys 115 120 125

Lys His Leu Ile Lys Ser His Ser Cys Pro Ala Leu Ala Val Ala Ser 130 135 140

Cys Gln Arg Pro Glu Gly Tyr Trp Ser Asp Cys Gly Thr Gln Ser Ala 145 150 155 160

His Ser Asp Tyr Ala Asp Glu Glu Asp Ser Phe Val Ser Asp Ser Ser 165 170 175

Asp Gln Val Gln Ala Cys Gly Arg Ala Cys Phe Tyr Gln Ser Arg Gly
180 185 190

Phe Pro Leu Val Arg Tyr Ala Tyr Asn Leu Pro Arg Val Lys Asp 195 200 205

<210> 528

<211> 72

<212> PRT

<213> Homo sapiens

<400> 528

Met Pro Ser Ile Arg Leu Gly Leu Ser His Leu Phe Leu Thr Ala Gly
1 5 10 15

Ile Tyr Cys Leu Leu Cys Ala Arg Cys Cys Ala Leu Gly Arg Gly
20 25 30

Thr Ala Trp Ala Ala Cys Pro Gly Gly Ala Cys Gly Leu Met Gly Glu 35 40 45

Ala Asp Pro Ser Pro Pro His Cys Gln Gln Gly Gln Gly Lys Ser Thr 50 55 60

His Arg Gly Leu Ile Pro Tyr Val 65 70

<210> 529

<211> 114

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 529

Met Ala Gly Pro Arg Ala Ser Thr Gly Pro Arg Pro Xaa Cys Leu Val 1 5 10 15

Leu Phe Leu Phe Asn Phe Ile Phe Cys Phe Met Ser Val Cys Pro Pro 20 25 30

Thr Pro Thr Pro Phe Ser Val Lys Trp Gly Ala Leu Gly Glu Ser Leu  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Pro Pro Ser Leu Ser Gln Asp Leu Pro Pro Arg His Gln Pro Ser 50 55 60

Leu Trp Thr Arg Gln Arg Ala Asp Arg Val Gly Arg Gly Leu Arg Val 65 70 75 80

Ala Arg Ala Ser Pro Pro Ala AsnGly Pro Leu Leu Arg Pro Pro Val\$85\$ 90 95

Ser Pro Cys Pro Phe Leu Lys Gln Asn Ala Leu Val Cys Lys Pro Leu 100 105 110

Asp Ala

<210> 530

<211> 49

<212> PRT

<213> Homo sapiens

<400> 530

Met Arg Leu Cys Ser Phe Thr Lys Val Pro Met Asn Leu Phe Leu Asn  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Ile Leu Lys Phe Tyr Asn Phe Leu Phe Ser Leu Ile Leu Gly 20 25 30

Lys Ser Cys Leu Ala Ser Leu Gly Leu Cys Lys Asn Asn Lys Cys Leu
35 40

Ser

<210> 531

<211> 62

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

```
<222> (16)
```

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (54)

<223> Xaa equals any of the naturally occurring £amino acids

<400> 531

Met Val Thr Gly Phe Phe Phe Ile Leu Met Thr Val Leu Trp Phe Xaa 1 5 10 15

Arg Glu Pro Gly Phe Val Pro Gly Trp Asp Ser Phe Phe Glu Lys Lys
20 25 30

Gly Tyr Arg Thr Asp Ala Thr Val Ser Val Phe Leu Gly Phe Leu Leu 35 40 45

Phe Leu Ile Pro Ala Xaa Glu Ala Leu Leu Trp Glu Lys Glu 50 60

<210> 532

<211> 49

<212> PRT

<213> Homo sapiens

<400> 532

Gly Arg Lys Gly Gly Leu Ser Gly Thr SerPhe Phe Thr Trp Phe Met  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Val Ile Ala Leu Leu Gly Val Trp Thr Ser Val Pro Val Val Trp Phe 20 25 30

Asp Leu Val Val Asp Glu Gln Ile Thr Ser GlnSer Lys Gly Leu Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu

<210> 533

<211> 300

<212> PRT

<213> Homo sapiens

<400> 533

Met Lys Phe Leu Leu Asp Ile Leu Leu Leu Pro Leu Leu Ile Val

5 10 15

Cys Ser Leu Glu Ser Phe Val Lys Leu Phe Ile Pro Lys Arg Arg Lys 20 25 30

Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly His Gly Ile  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

- Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys Ser Lys Leu Val
  50 60
- Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu Thr Ala Ala Lys Cys 65 70 75 80
- Lys Gly Leu Gly Ala Lys Val His Thr Phe Val Val Asp Cys Ser Asn 85 90 95
- Arg Glu Asp Ile Tyr Ser Ser Ala Lys Lys Val Lys Ala Glu Ile Gly 100 105
- Asp Val Ser Ile Leu Val Asn Asn Ala Gly Val Val Tyr Thr Ser Asp 115 120 125
- Leu Phe Ala Thr Gln Asp Pro Gln Ile Glu Lys Thr Phe Glu Val Asn 130 135 140
- Val Leu Ala His Phe Trp Thr Thr Lys Ala Phe Leu Pro Ala Met Thr 145 150 155 160
- Lys Asn Asn His Gly His Ile Val Thr Val Ala Ser Ala Ala Gly His 165 170 175
- Val Ser Val Pro Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala 180 185 190
- Val Gly Phe His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile 195 200 205
- Thr Gly Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly 210 215 220
- Phe Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu 225 230 235 240
- Glu Val Val Asn Arg Leu Met HisGly Ile Leu Thr Glu Gln Lys Met 245 250 255
- Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu Arg Ile 260 265 270
- Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile Ser Val Lys 275 280 285
- Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln 290 295 300

<211> 122

<212> PRT

<213> Homo sapiens

<sup>&</sup>lt;210> 534

Met Cys Tyr Leu Leu Leu Leu Ile Gln Thr Ala Glu Leu Leu Ile 1 5 10 15

His Pro Gln Gly Leu Gln Ala Val Ser Asn Gly Glu Ser Ala Leu Lys 20 25 30

Gly Thr Arg Pro Thr Phe Ser Ser Pro Phe Ile Leu Val Thr Glu Gly
35 40 45

Arg Lys Glu Trp Glu Gly Val Phe Leu Ser Ser Gly Trp Lys Gly Asn 50 55 60

Thr Leu Ser Asn Tyr Tyr Ile Ser Leu Val Phe Tyr Tyr Ser Arg Ile 65 70 75 80

Leu Gln Pro Tyr Phe Tyr Cys Leu Trp Gly Lys Leu Glu Met Val Thr 85 90 95

Leu Ile Arg Ser Val Trp Arg Gly Ile Asn Gly Gly Asp Lys Ile Gln
100 105 110

Leu Val Leu Glu Asn Val Lys Val Leu Lys 115 120

<210> 535

<211> 43

<212> PRT

<213> Homo sapiens

<400> 535

Met Glu His Leu Ile Arg Ser Gly Val Lys Ile Leu Phe Leu Asn Leu 1 5 10 15

Leu Leu Thr Ser Cys Thr Thr Leu Asn Glu Trp Leu Asn Phe Leu Val
20 25 30

Thr Leu Asn Cys Ser Arg Tyr Lys Met Thr Gly 35

<210> 536

<211> 66

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 536

Met Asn Leu Ser Ile Ile Leu Pro Asn Ser Phe Xaa His Leu Cys Asn  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

```
Phe Ser Leu Phe Leu Leu Pro Leu Pro Val Pro Ser Gln Pro Leu Ile
20 25 30
```

Cys Ser Gly Asn Tyr Gln Ser Ser Phe Cys His Tyr Arg Leu Ile Cys 35 40 45

Ile Phe Lys Glu Ile Tyr Ile His Gly Thr Ile His His Leu Cys Phe 50 60

Val Val 65

<210> 537

<211> 140

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (129)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (132)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (134)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 537

Met Phe Phe Ser Leu Pro Gly Leu Trp Gln Ile Ala Ser Phe Thr His 1 5 10 15

Asn Leu Ile Phe His Leu Trp Val Trp Gly Ser Glu Sæ Gly Glu His 20 25 30

Leu Gln Ser His Asn Asp Pro Asp Thr Arg Gln Gly Gly His Ile Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ile Arg Leu Leu Gly Glu Ser Ser Ala Ser Val Pro Gly Ser Ser Gl 50 55 60

Gly His Thr Gly Gly Pro Ala Pro Pro Arg Val Gly Gly Ser Ala Gly 65 70 75 80

Ile Ile Arg Thr His Val Val Phe Leu Val Ser Trp Pro Leu Leu Gln 85 90 95

Arg Glu Gln His Arg Leu Ser Trp Lys Leu Pro Ser Val Met Trp Gly
100 105 110

Asp Ser Arg Glu Pro His Leu Ala Arg Leu Asp Gln Ser Lys Trp Pro

115 120 125

Xaa Ala Thr Xaa Ala Xaa Gln Tyr Leu Gly Arg Gly 130 135 140

<210> 538

<211> 94

<212> PRT

<213> Homo sapiens

<400> 538

Met His Phe Phe Val Glu Ser Thr Ile ValSer Asp Thr Leu Ile Thr  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Leu Ser Asn Leu Thr Phe His Lys Cys Pro Glu Tyr Glu Asn Ile Ile 20 25 30

Gln Asp Leu Asn Thr Asn Tyr Gln Asn Leu GlnLeu Ser Asn Gly Arg
35 40 45

Leu Arg Phe Met Leu Cys His Val Phe Ser Ser Phe Leu Phe Val Met 50 55 60

Val Phe Gln Ile Val Glu Lys Glu Asn Ile Leu Phe Val Ile Ala Ser 65 70 75 80

Ala Ser Tyr Phe Cys Lys Thr Asn Tyr Ser Asn Ser Val Val 85 90

<210> 539

<211> 563

<212> PRT

<213> Homo sapiens

<400> 539

Met Trp Ala Val Leu Arg Leu Ala Leu Arg Pro Cys Ala Arg Ala Ser 1 5 10 15

Pro Ala Gly Pro Arg Ala Tyr His Gly Asp Ser Val Ala Ser Leu Gly 20 25 30

Thr Gln Pro Asp Leu Gly Ser Ala Leu Tyr Gln Glu Asn Tyr Lys Gln
35 40 45

Met Lys Ala Leu Val Asn Gln Leu His Glu Arg Val Glu His Ile Lys 50 55 60

Leu Gly Gly Glu Lys Ala Arg Ala Leu Hs Ile Ser Arg Gly Lys
65 70 75 80

Leu Leu Pro Arg Glu Arg Ile Asp Asn Leu Ile Asp Pro Gly Ser Pro 85 90 95

- Phe Leu Glu Leu Ser Gln Phe Ala Gly Tyr Gln Leu Tyr Asp Asn Glu
  100 105 110

  Glu Val Pro Gly Gly Gly Ile Ile Thr Gly Ile Gly Arg Val Ser Gly
  115 120 125
- Val Glu Cys Met Ile Ile Ala Asn Asp Ala Thr Val ½s Gly Gly Ala 130 135 140
- Tyr Tyr Pro Val Thr Val Lys Lys Gln Leu Arg Ala Gln Glu Ile Ala 145 150 155 160
- Met Gln Asn Arg Leu Pro Cys Ile Tyr Leu Val Asp Ser Gly  $\mathbb{G}$ y Ala 165 170 175
- Tyr Leu Pro Arg Gln Ala Asp Val Phe Pro Asp Arg Asp His Phe Gly 180 185 190
- Arg Thr Phe Tyr Asn Gln Ala Ile Met Ser Ser Lys Asn Ile Ala En 195 200 205
- Ile Ala Val Val Met Gly Ser Cys Thr Ala Gly Gly Ala Tyr Val Pro 210 220
- Ala Met Ala Asp Glu Asn Ile Ile Val Arg Lys Gln Gly Thr Ile Phe 225 230 235 240
- Leu Ala Gly Pro Pro Leu Val Lys Ala Ala Thr Gly Glu Glu Val Ser 245 250 255
- Ala Glu Asp Leu Gly Gly Ala Asp Leu His Cys Arg Lys Ser Gly Val 260 265 270
- Ser Asp His Trp Ala Leu Asp Asp His His Ala Leu His Leu Thr Arg 275 280 285
- Lys Val Val Arg Asn Leu Asn Tyr Gln Lys Lys Leu Asp Val Thr Ile 290 295 300
- Glu Pro Ser Glu Glu Pro Leu Phe Pro Ala Asp Glu Leu Tyr Gly Ile 305 310 315 320
- Val Gly Ala Asn Leu Lys Arg Ser Phe Asp Val Arg Glu Val Ile Ala 325 330 335
- Arg Ile Val Asp Gly Ser Arg Phe Thr Glu Phe Lys Ala Phe Tyr Gly 340 345 350
- Asp Thr Leu Val Thr Gly Phe Ala Arg Ile Phe Gly Tyr Pro Val Gly 355 360 365
- Ile Val Gly Asn Asn Gly Val Leu Phe Ser Glu Ser Ala Lys Lys Gly 370 375 380
- Thr His Phe Val Gln Leu Cys Cys Gln Arg Asn Ile Pro Leu Leu Phe 385 390 395 400

Leu Gln Asn Ile Thr Gly Phe Met Val Gly Arg Glu Tyr Glu Ala Glu 405 410 415

Gly Ile Ala Lys Asp Gly Ala Lys Met Val Ala Ala Val Ala Cys Ala 420 425 430

Gln Val Pro Lys Ile Thr Leu Ile Ile Gly Gly Ser Tyr Gly Ala Gly 435 440 445

Asn Tyr Gly Met Cys Gly Arg Ala Tyr Ser Pro Arg Phe Leu Tyr Ile 450 455 460

Trp Pro Asn Ala Arg Ile Ser Val Met Gly Gly Glu Gln Ala Ala Asn 465 470 475 480

Val Leu Ala Thr Ile Thr Lys Asp Gln Arg Ala Arg Glu Gly Lys Gln 485 490 495

Phe Ser Ser Ala Asp Glu Ala Ala Leu Lys Glu Pro Ile Ile Lys Lys 500 505 510

Phe Glu Glu Glu Gly Asn Pro Tyr Tyr Ser Ser Ala Arg Val Trp Asp 515 520 525

Asp Gly Ile Ile Asp Pro Ala Asp Thr Arg Leu Val Leu Gly Leu Ser 530 540

Phe Ser Ala Ala Leu Asn Ala Pro Ile Glu Lys Thr Asp Phe Gly Ile 545 550 555 560

Phe Arg Met

<210> 540

<211> 53

<212> PRT

<213> Homo sapiens

<400> 540

Met Val Gln Phe Glu Val Ile Phe Leu Leu Phe Gly Leu Cys Phe Ser 1 5 10 15

Ser Ser Ser Ser Arg Leu Val Gly Ser Gln Val Glu Asn Phe Ser Pro 20 25 30

Thr Pro Cys Ile Phe Gln Ala Phe Arg Cys Ser Ser Leu Ala Ile Ile 35 40 45

Ser Met Ser Leu Ser 50

<210> 541

<211> 421

- <212> PRT <213> Homo sapiens
- <400> 541
- Met Thr Val Phe Phe Lys Thr Leu Arg Asn His Trp Lys Lys Thr Thr 1 5 10 15
- Ala Gly Leu Cys Leu Leu Thr Trp Gly Gly His Trp Leu Tyr Gly Lys 20 25 30
- His Cys Asp Asn Leu Leu Arg Arg Ala Ala Cys Gln Glu Ala Gln Val $40 \hspace{1.5cm} 40 \hspace{1.5cm} 45$
- Phe Gly Asn Gln Leu Ile Pro Pro Asn Ala Gln Val Lys Lys Ala Thr
  50 60
- Val Phe Ser Ile Leu Gln Leu Ala Lys Glu Lys Pro Gly Leu Tyr Leu 65 70 75 80
- Lys Lys Met Leu Pro Asp Phe Thr Phe Ile Trp His Gly Cys Asp Tyr 85 90 95
- Cys Lys Thr Asp Tyr Glu Gly Gln Ala Lys Lys Leu Leu Glu Leu Met 100 105 110
- Glu Asn Thr Asp Val Ile Ile Val Ala Gly Gly Asp Gly Thr Leu Gln
  115 120 125
- Glu Val Val Thr Gly Val Leu Arg Arg Thr Asp Glu Ala Thr Phe Ser 130 135 140
- Lys Ile Pro Ile Gly Phe Ile Pro Leu Gly Glu Thr Ser Ser Leu Ser 145 150 155
- His Thr Leu Phe Ala Glu Ser Gly Asn Lys Val Gln His Ile Thr Asp 165 170 175
- Ala Thr Leu Ala Ile Val Lys Gly Glu Thr Val Pro Leu Asp Val Leu 180 185 190
- Gln Ile Lys Gly Glu Lys Glu Gln Pro Val Phe Ala Met Thr Gly Leu 195 200 205
- Arg Trp Gly Ser Phe Arg Asp Ala Gly Val Lys Val Ser Lys Tyr Trp 210 215 220
- Tyr Leu Gly Pro Leu Lys Ile Lys Ala Ala HisPhe Phe Ser Thr Leu 225 230 235 240
- Lys Glu Trp Pro Gln Thr His Gln Ala Ser Ile Ser Tyr Thr Gly Pro 245 250 255
- Thr Glu Arg Pro Pro Asn Glu Pro Glu GluThr Pro Val Gln Arg Pro 260 265 270
- Ser Leu Tyr Arg Arg Ile Leu Arg Arg Leu Ala Ser Tyr Trp Ala Gln 275 280 285

Pro Gln Asp Ala Leu Ser Gln Glu Val Ser Pro Glu ValTrp Lys Asp 290 295 300

Val Gln Leu Ser Thr Ile Glu Leu Ser Ile Thr Thr Arg Asn Asn Gln 305 310 315 320

Leu Asp Pro Thr Ser Lys Glu Asp Phe Leu Asn Ile Cys Ile GluPro 325 330 335

Asp Thr Ile Ser Lys Gly Asp Phe Ile Thr Ile Gly Ser Arg Lys Val

Arg Asn Pro Lys Leu His Val Glu Gly Thr Glu Cys Leu Gln Ala Ser 355 360 365

Gln Cys Thr Leu Leu Ile Pro Glu Gly Ala Gly Gly Ser Phe Ser Ile 370 375 380

Asp Ser Glu Glu Tyr Glu Ala Met Pro Val Glu Val Lys Leu Leu Pro 385 390 395 400

Arg Lys Leu Gln Phe Phe Cys Asp Pro Arg Lys Arg Glu Gln Met Leu 405 410 415

Thr Ser Pro Thr Gln 420

<210> 542

<211> 55

<212> PRT

<213> Homo sapiens

<400> 542

Met Pro Ser Ser Trp Leu Pro Gly Cys Phe Val Leu Leu Cys Leu Val 1 5 15

Ala Val Gly Cys Gln Leu Arg Glu Trp Gly Val Gly Gly Val Ser Ala 20 25 30

Val Gly Leu Leu Ala Leu Pro His Leu Gln Val Leu Gly Met Arg Gly 35 40 45

Arg Gly Leu Ile Ser Gly Gly
50 55

<210> 543

<211> 242

<212> PRT

<213> Homo sapiens

<400> 543

Met Gln Leu Gly Ser Val Leu Leu Thr Arg Cys Pro Phe Trp Gly Cys

1 5 10 15

Phe Ser Gln Leu Met Leu Tyr Ala Glu Arg Ala Glu Ala Arg Arg Lys
20 25 30

Pro Asp Ile Pro Val Pro Tyr Leu Tyr Phe Asp Met Gly Ala Ala Val 35 40 45

Leu Cys Ala Ser Phe Met Ser Phe Gly Val Lys Arg Arg Trp Phe Ala 50 55 60

Leu Gly Ala Ala Leu Gln Leu Ala Ile Ser Thr Tyr Ala Ala Tyr Ile 65 70 75 80

Gly Gly Tyr Val His Tyr Gly Asp Trp Leu Lys Val Arg Met Tyr Ser 85 90 95

Arg Thr Val Ala Ile Ile Gly Gly Phe Leu Val Leu Ala Ser Gly Ala 100  $\,$  105  $\,$  110

Gly Glu Leu Tyr Arg Arg Lys Pro Arg Ser Arg Ser Leu Gln Ser Thr 115 120 125

Gly Gln Val Phe Leu Gly Ile Tyr Leu Ile Cys Val Ala Tyr Ser Leu 130 135 140

Gln His Ser Lys Glu Asp Arg Leu Ala Tyr Leu Asn His Leu Pro Gly 145 150 155 160

Gly Glu Leu Met Ile Gln Leu Phe Phe Val Leu Tyr Gly Ile Leu Ala 165 170 175

Leu Ala Phe Leu Ser Gly Tyr Tyr Val Thr Leu Ala Ala Gln Ile Leu 180 185 190

Ala Val Leu Leu Pro Pro Val Met Leu Leu Ile Asp Gly Asn Val Ala 195 200 205

Tyr Trp His Asn Thr Arg Arg Val Glu Phe Trp Asn Gln Met Lys Leu 210 215 220

Leu Gly Glu Ser Val Gly Ile Phe Gly Thr Ah Val Ile Leu Ala Thr 225 230 235 240

Asp Gly

<210> 544

<211> 189

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 544

Met Ala Leu Leu Ser Arg Pro Ala Leu Thr Leu Leu Leu Leu Met 1 5 10 15

Ala Ala Val Val Arg Cys Gln Glu Gln Ala Gln Thr Thr Asp Trp Arg 20 25 30

Ala Thr Leu Lys Thr Ile Arg Asn Gly Val His Lys Ile Asp Thr Tyr 35 40 45

Leu Asn Ala Ala Leu Asp Leu Leu Gly Gly Glu Asp Gly Leu Cys Gln
50 60

Tyr Lys Cys Ser Asp Gly Ser Lys Pro Phe Pro Arg Tyr Gly Tyr Lys
65 70 75 80

Pro Ser Pro Pro Asn Gly Cys Gly Ser Pro Leu Phe Gly Xaa His Leu 85 90 95

Asn Ile Gly Ile Pro Ser Leu Thr Lys Cys Cys Asn Gln His Asp Arg 100 105 110

Cys Tyr Glu Thr Cys Gly Lys Ser Lys Asn Asp Cys Asp Glu Glu Phe 115 120 125

Gln Tyr Cys Leu Ser Lys Ile Cys Arg Asp Val Gln Lys Thr Leu Gly 130 135

Leu Thr Gln His Val Gln Ala Cys Glu Thr Thr Val Glu Leu Leu Phe 145 150 155 160

Asp Ser Val Ile His Leu Gly Cys Lys Pro Tyr Leu Asp Ser Gln Arg 165 170 175

Ala Ala Cys Arg Cys His Tyr Glu Glu Lys Thr Asp Leu 180 185

<210> 545

<211> 264

<212> PRT

<213> Homo sapiens

<400> 545

Met Leu Arg Cys Gly Gly Arg Gly Leu Leu Leu Gly Leu Ala Val Ala 1 5 10 15

Ala Ala Val Met Ala Ala Arg Leu Met Gly Trp Trp Gly Pro Arg 20 25 6

Ala Gly Phe Arg Leu Phe Ile Pro Glu Glu Leu Ser Arg Tyr Arg Gly 35 40 45

Gly Pro Gly Asp Pro Gly Leu Tyr Leu Ala Leu Leu Gly Arg Val Tyr

55 60

Asp Val Ser Ser Gly Arg Arg His Tyr Glu Pro Gly Ser His Tyr Ser 65 70 75 80

- Gly Phe Ala Gly Arg Asp Ala Ser Arg Ala Phe Val Thr Gly Asp Cys 85 90 95
- Ser Glu Ala Gly Leu Val Asp Asp Val Ser Asp Leu Ser Ala Ala Glu 100 105 110
- Met Leu Thr Leu His Asn Trp Leu Ser Phe Tyr Glu Lys Asn Tyr Val 115 120 125
- Cys Val Gly Arg Val Thr Gly Arg Phe Tyr Gly Glu Asp Gly Leu Pro 130 140
- Thr Pro Ala Leu Thr Gln Val Glu Ala Ala Ile Thr Arg Gly Leu Glu 145 150 155 160
- Ala Asn Lys Leu Gln Leu Gln Glu Lys Gln Thr Phe Pro Pro Cys Asn 165 170 175
- Ala Glu Trp Ser Ser Ala Arg Gly Ser Arg Leu Trp Cys Ser Gln Lys 180 185 190
- Ser Gly Gly Val Ser Arg Asp Trp IleGly Val Pro Arg Lys Leu Tyr 195 200 205
- Lys Pro Gly Ala Lys Glu Pro Arg Cys Val Cys Val Arg Thr Thr Gly 210 215 220
- Pro Pro Ser Gly Gln Met Pro Asp Asn Pro Pro His Arg AsnArg Gly 225 230 235
- Asp Leu Asp His Pro Asn Leu Ala Glu Tyr Thr Gly Cys Pro Pro Leu 245 250 255

Ala Ile Thr Cys Ser Phe Pro Leu 260

<210> 546

<211> 64

<212> PRT

<213> Homo sapiens

- Met Pro Leu Phe Leu Phe Val Ala His Leu Ile Ser Leu Leu Leu Ala
- Phe Arg Arg Pro Pro Ala Ser Gln Ile Thr Pro Arg Ala Trp  $\mathbb{F}$ r Thr 20 25 30
- Glu Ile Ala Ser Cys Glu Ser Val Glu Met Val Lys Ala Leu Ser Ser 35 40 45

```
<210> 547
<211> 56
<212> PRT
<213> Homo sapiens
<400> 547
Met Leu Val Ala Pro Phe Asn Leu Leu Phe Glu Met Ala Pro Phe Asn
Ile Phe Leu Phe Pro Gln Trp Gly Leu Leu Trp Leu Met Leu Tyr Leu
Leu Tyr Val Phe Gln Ala Ser Leu Arg Thr Pro Glu Leu Thr Trp Glu
Arg Val Arg Ser Gln Val Asp Gln
<210> 548
<211> 53
<212> PRT
<213> Homo sapiens
<400> 548
Met Leu Val Phe Leu Leu Phe Ser Thr Val Thr Val Leu Cys Leu
Lys Val Val Phe Ser Leu Lys Ala Val Ala Tyr Ile Val Lys Asn Glu
             20
Gly Leu Cys Leu Lys Phe Ile Ala Leu Gln Arg Val Val Ser Leu Lys
                              40
Ser Cys Thr Ile Lys
     50
<210> 549
<211> 49
<212> PRT
<213> Homo sapiens
```

Leu Arg Ser Arg Ala Gln Val Asn Ala Asp Phe Pro Gly His Leu Cys `

50

<400> 549

Met Asn Leu Leu Gly Met Ile Phe Ser Met Cys Gly Leu Met Leu Lys

Leu Lys Trp Cys Ala Trp Val Ala Val Tyr Cys Ser Ph Ile Ser Phe 20 25 30

Ala Asn Ser Arg Ser Ser Glu Asp Thr Lys Gln Met Met Ser Ser Phe 35 40 45

Met

<210> 550

<211> 59

<212> PRT

<213> Homo sapiens

<400> 550

Met Asn Ser Thr Leu Cys Val Val Leu Ser Leu Met Cys Met Asn Ser 1 5 10 15

Thr Leu Cys Val Val Leu Ser Leu Thr His Ser Cys Pro Ser Pro Gln 20 25 30

Val Pro Lys Val His Tyr Met Ile Phe Met Pro Leu His Leu His Ser 35 40 45

Leu Ala Leu Thr Gln Leu Ile Ile Tyr Lys 50 55

<210> 551

<211> 240

<212> PRT

<213> Homo sapiens

<400> 551

Met Gly Asn Cys Gln Ala Gly His Asn Leu His Leu Cys Leu Ala His 1 5 10 15

His Pro Pro Leu Val Cys Ala Thr Leu Ile Leu Leu Leu Gly Leu 20 25 30

Ser Gly Leu Gly Leu Gly Ser Phe Leu Leu Thr His Arg Thr Gly Leu 35 40 45

Arg Ser Pro Asp Ile Pro Gln Asp Trp Val Ser Phe Leu Arg Ser Phe 50 55 60

Gly Gln Leu Thr Leu Cys Pro Arg Asn Gly Thr Val Thr Gly Lys Trp 65 70 75 80

Arg Gly Ser His Val Val Gly Leu Leu Thr Thr Leu Asn Phe Gly Asp 85 90 95

Gly Pro Asp Arg Asn Lys Thr Arg Thr Phe Gln Ala Thr Val Leu Gly

100 105 110

Ser Gln Met Gly Leu Lys Gly Ser Ser Ala Gly Gln Leu Val Leu Ile 115 120 125

Thr Ala Arg Val Thr Thr Glu Arg Thr Ala Gly Thr Cys Leu Tyr Phe 130 140

Ser Glu Glu Gly Ala Gly Asn Ala Thr Leu Ser Pro Arg Met Gly Glu 165 170 175

Glu Cys Val Ser Val Trp Ser His Glu Gly Leu Val Leu Thr Lys Leu 180 185 190

Leu Thr Ser Glu Glu Leu Ala Leu Cys Gly Ser Arg Leu Leu Val Leu 195 200 205

Gly Ser Phe Leu Leu Phe Cys Gly Leu Leu Cys Cys Val Thr Ala 210 215 220

Met Cys Phe His Pro Arg Arg Glu Ser HisTrp Ser Arg Thr Arg Leu 225 230 235 240

<210> 552

<211> 39

<212> PRT

<213> Homo sapiens

<400> 552

Met Leu Leu Leu Leu Lys Thr Leu Phe Val Thr Phe Trp Ser Thr Asn  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Leu Ser Ile Thr Phe Ser Asn Tyr Asn Val Lys Leu Tyr Gln Trp Gln 20 25 30

Ser Tyr Ile Val Asn Gly Ser 35

<210> 553

<211> 174

<212> PRT

<213> Homo sapiens

<400> 553

Met Glu Ala Pro Gly Pro Arg Ala Leu Arg Thr Ala Leu Cys Gly Gly 1 10 15

- Cys Cys Cys Leu Leu Cys Ala Gln Leu Ala Val Ala Gly Lys Gly
  20 25 30
- Ala Arg Gly Phe Gly Arg Gly Ala Leu Ile Arg Leu Asn Ile Trp Pro 35 40 45
- Ala Val Gln Gly Ala Cys Lys Gln Leu Glu Val Cys Glu His Cys Val 50 60
- Glu Gly Asp Arg Ala Arg Asn Leu Ser Ser Cys Met Trp Glu Gln Cys
  65 70 75 80
- Arg Pro Glu Glu Pro Gly His Cys Val Ala Gln Ser Glu Val Val Lys 85 90 95
- Glu Gly Cys Ser Ile Tyr Asn Arg Ser Glu Ala Cys Pro Ala Ala His 100 105 110
- His His Pro Thr Tyr Glu Pro Lys Thr Val Thr Thr Gly Ser Pro Pro 115 120 125
- Val Pro Glu Ala His Ser Pro Gly Phe Asp Gly Ala Ser Phe Ile Gly 130 135 140
- Gly Val Val Leu Val Leu Ser Leu Gln Ala Val Ala Phe Phe Val Leu 145 150 155 160
- His Phe Leu Lys Ala Lys Asp Ser Thr Tyr Gln Thr Leu Ile 165 170

<210> 554

<211> 245

<212> PRT

<213> Homo sapiens

- Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser 1 5 D 15
- Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys
  20 25 30
- Lys Gly Glu Ala Gly Arg Pro Gly Arg Gly Arg Pro Gly Leu Lys  $35 \hspace{1cm} 40 \hspace{1cm} 45$
- Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln 50 55 60
- Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly 65 70 75 ®
- Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile 85 90 95
- Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln

100 105 110

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly 115 120 125

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr 130 135 140

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr 145 150 155 160

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val 165 170 175

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr 180 185 190

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln 195 200 205

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly 210 215 220

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu 225 230 235 240

Ile Phe Pro Ser Ala 245

<210> 555

<211> 61

<212> PRT

<213> Homo sapiens

<400> 555

Met Tyr Leu Phe Leu Lys Thr Leu Leu Ser Phe Ser Thr Leu Met Met 1 5 10 15

Thr Thr Ala Leu Ser Phe Met Val Ile Thr Val Leu  ${\tt Tp}$  Val Leu Leu  ${\tt 20}$   ${\tt 25}$   ${\tt 30}$ 

Leu His Leu Leu Ala Asn Ile Cys Ile Pro Arg Lys Cys Ser Phe Ala  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$ 

Cys Phe Tyr Ile Asn Gly Ile Leu Leu His Ala Val Phe 50 60

<210> 556

<211> 54

<212> PRT

<213> Homo sapiens

Ile Gln Ser Ser Leu Arg Ser Asp Lys His Leu Gln Leu Ser Asn Ile 20 25 30

Leu Pro Thr Pro Ser His His Ile His Leu Pro Ala Ser Ile Cys Ile 35 40 45

Gln Leu Arg Ala Gly Asn 50

<210> 557

<211> 83

<212> PRT

<213> Homo sapiens

<400> 557

Met Leu Ser Leu Phe Phe Cys Phe Trp Lys Pro Ser Phe Leu Val Ser 1 5 10 15

Arg Leu Val Ile Trp Leu Gly Leu Val Cys Gly Gly Ag Ser Leu Ser 20 25 30

Trp Val Ala Leu Gly Glu Asp Tyr Leu Gly Thr Pro Ile Leu Ile Pro 35 40 45

Asn Ile His Gln Thr Cys Pro His Pro Pro Leu Trp Glu Leu Val ₱o 50 55 60

Glu His Pro Cys Arg Leu Val Leu Ile Phe Ser Leu Cys Glu His Thr 65 70 75 80

His Ile Arg

<210> 558

<211> 319

<212> PRT

<213> Homo sapiens

<400> 558

Met Ser Trp Cys Cys Leu Trp Leu Cys Leu Ser Ser Val Gly Arg Thr 1 5 10 15

Gly Ser Ala Gly Pro Ser Leu Pro Phe Ser Glu Leu Cys Ser Leu Gly

Leu Leu Arg Leu Arg Pro Val Phe Ser Pro Leu His Ser Gly Pro Gly

Lys Pro Ala Gln Phe Leu Ala Gly Glu Ala Glu Glu Val Asn Ala Phe 50 55 60

- Ala Leu Gly Phe Leu Ser Thr Ser Ser Gly Val Ser Gly Glu Asp Glu 65 70 75 80
- Val Glu Pro Leu His Asp Gly Val Glu Glu Ala Glu Lys Lys Met Glu 85 90 95
- Glu Glu Gly Val Ser Val Ser Glu Met Glu Ala Thr Gly Ala Gln Gly
  100 105 110
- Pro Ser Arg Val Glu Glu Ala Glu Gly His Thr Glu Val Thr Glu Ala 115 120 125
- Glu Gly Ser Gln Gly Thr Ala Glu Ala Asp Gly Pro Gly Ala Ser Ser 130 135 140
- Gly Asp Glu Asp Ala Ser Gly Arg Ala Ala Ser Pro Glu Ser Ala Ser 145 150 155 160
- Ser Thr Pro Glu Ser Leu Gln Ala Arg Arg His His Gln Phe Leu Glu 165 170 175
- Pro Ala Pro Ala Pro Gly Ala Ala Val Leu Ser Ser Glu Pro Ala Glu 180 185 190
- Pro Leu Leu Val Arg His Pro Pro Arg Pro Arg Thr Thr Gly Pro Arg 195 200 205
- Pro Arg Gln Asp Pro His Lys Ala Gly Leu Ser His Tyr Val Lys Leu 210 215 220
- Phe Ser Phe Tyr Ala Lys Met Pro Met Glu Arg Lys Ala Leu Glu Met 225 230 235 240
- Val Glu Lys Cys Leu Asp Lys Tyr Phe Gln His Leu Cys Asp Asp Leu 245 250 255
- Glu Val Phe Ala Ala His Ala Gly Arg Lys Thr Val Lys Pro Glu Asp 260 265 270
- Leu Glu Leu Leu Met Arg Arg Gln Gly Leu Val Thr Asp Gln Val Ser 275 280 285
- Leu His Val Leu Val Glu Arg His Leu Pro Leu Glu Tyr Ag Gln Leu 290 295 300
- Leu Ile Pro Cys Ala Tyr Ser Gly Asn Ser Val Phe Pro Ala Gln 305 310 315

<sup>&</sup>lt;210> 559

<sup>&</sup>lt;211> 336

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

- Met Ile Ser Tyr Ile Val Leu Leu Ser Ile Leu Leu Trp Pro Leu Val 1 5 10 15
- Val Tyr His Glu Leu Ile Gln Arg Met Tyr Thr Arg Leu Glu Pro Leu 20 25 30
- Leu Met Gln Leu Asp Tyr Ser Met Lys Ala Glu Ala Asn Ala Leu His 35 40 45
- His Lys His Asp Lys Arg Lys Arg Gln Gly Lys Asn Ala Pro Pro Gly 50 55 60
- Gly Asp Glu Pro Leu Ala Glu Thr Glu Sær Glu Ser Glu Ala Glu Leu
  65 70 75 80
- Ala Gly Phe Ser Pro Val Val Asp Val Lys Lys Thr Ala Leu Ala Leu 85 90 95
- Ala Ile Thr Asp Ser Glu Leu Ser Asp Glu Glu Ala Ser Ile Leu Glu 100 105 110
- Ser Gly Gly Phe Ser Val Ser Arg Ala Thr Thr Pro Gln Leu Thr Asp 115 120 125
- Val Ser Glu Asp Leu Asp Gln Gln Ser Leu Pro S∉ Glu Pro Glu Glu 130 135 140
- Thr Leu Ser Arg Asp Leu Gly Glu Gly Glu Gly Glu Leu Ala Pro 145 150 155 160
- Pro Glu Asp Leu Leu Gly Arg Pro Gln Ala Leu Ser Arg Gm Ala Leu 165 170 175
- Asp Ser Glu Glu Glu Glu Glu Asp Val Ala Ala Lys Glu Thr Leu Leu 180 185 190
- Arg Leu Ser Ser Pro Leu His Phe Val Asn Thr His Phe Asn Gl Ala 195 200 205
- Gly Ser Pro Gln Asp Gly Val Lys Cys Ser Pro Gly Gly Pro Val Glu 210 215 220
- Thr Leu Ser Pro Glu Thr Val Ser Gly Gly Leu Thr Ala Leu Pro Gly 225 230 235 240
- Thr Leu Ser Pro Pro Leu Cys Leu Val Gly Ser Asp Pro Ala Pro Ser 245 250 255
- Pro Ser Ile Leu Pro Pro Val Pro Gln Asp Ser Pro Gln Pro Leu Pro 260 265 270
- Ala Pro Glu Glu Glu Glu Ala Leu Thr Thr Glu Asp Phe Glu Leu Leu 275 280 285
- Asp Gln Gly Glu Leu Glu Gln Leu Asn Ala Glu Leu Gly Leu Glu Pro 290 295 300

Glu Thr Pro Pro Lys Pro Pro Asp Ala Pro Pro Leu Gly Pro Asp Ile 305 310 315 320

His Ser Leu Val Gln Ser Asp Gln Glu Ala Gln Ala Val Ala Glu Pro 325 330 335

<210> 560

<211> 272

<212> PRT

<213> Homo sapiens

<400> 560

Met Trp Gly Asn Lys Phe Gly Val Leu Leu Phe Leu Tyr Ser Val Leu 1 5 10 15

Leu Thr Lys Gly Ile Glu Asn Ile Lys Asn Glu Ile Glu Asp Ala Ser 20 25 30

Glu Pro Leu Ile Asp Pro Val Tyr Gly His Gly Ser Gln Ser Leu Ile 35 40 45

Asn Leu Leu Thr Gly His Ab Val Ser Asn Val Trp Asp Gly Asp 50 55 60

Arg Glu Cys Ser Gly Met Lys Leu Leu Gly Ile His Glu Gln Ala Ala 65 70 75 80

Val Gly Phe Leu Thr Leu Met Glu Ala Le Arg Tyr Cys Lys Val Gly 85 90 95

Ser Tyr Leu Lys Ser Pro Lys Phe Pro Ile Trp Ile Val Gly Ser Glu 100 105 110

Thr His Leu Thr Val Phe Phe Ala Lys Asp Me Ala Leu Val Ala Pro 115 120 125

Glu Ala Pro Ser Glu Gln Ala Arg Arg Val Phe Gln Thr Tyr Asp Pro 130 135 140

Glu Asp Asn Gly Phe Ile Pro Asp Ser Leu Leu Glu Asp Val Met Lsy 145 150 155 160

Ala Leu Asp Leu Val Ser Asp Pro Glu Tyr Ile Asn Leu Met Lys Asn 165 170 175

Lys Leu Asp Pro Glu Gly Leu Gly Ile Ile Leu Leu Gly Pro Pa Leu 180 185 190

Gln Glu Phe Pro Asp Gln Gly Ser Ser Gly Pro Glu Ser Phe Thr 195 200 205

Val Tyr His Tyr Asn Gly Leu Lys Gln Ser Asn Tyr Asn Glu Lys Val

220 215 210

Met Tyr Val Glu Gly Thr Ala Val Val Met Gly Phe Glu Asp Pro Met 230

Leu Gln Thr Asp Asp Thr Pro Ile Lys Arg Cys Leu Gln Thr Lys Trp 245

Pro Tyr Ile Glu Leu Leu Trp Thr Thr Asp Arg Ser Pro Ser Leu Asn 265

<210> 561

<211> 89

<212> PRT

<213> Homo sapiens

<400> 561

Met Phe Lys Asp Tyr Pro Pro Ala Ile Lys Pro Ser Tyr Asp Val Leu

Leu Leu Leu Leu Leu Val Leu Leu Gln Ala Gly Leu Asn Thr

Gly Thr Ala Ile Gln Cys Val Arg Phe Lys Val Ser Ala Arg Leu Gln

Gly Ala Ser Trp Asp Thr Gln Asn Gly Pro Gln Glu Arg Leu Ala Gly

Glu Val Ala Arg Ser Pro Leu Lys Glu Phe Asp Lys Glu Lys Ala Trp 70

Arg Ala Val Val Gln Met Ala Gln 85

<210> 562

<211> 52

<212> PRT

<213> Homo sapiens

<400> 562

Met Tyr Leu Met Ser Phe Ser Ile His Phe Val Lys Ile Ile Cys Met

Cys Thr Ile Leu Val Leu Ser Pro Pro Val Leu Leu Lys Tyr Gln Asp

Ser Thr Pro Arg Pro Leu Trp &r Gln Cys Lys Ile Pro Ile Asn Tyr 40 35

```
50
<210> 563
<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurringL-amino acids
<400> 563
Met Ala Gln His His Leu Leu Ser Ile Leu Leu Ala Ile Leu Ser Cys
Ser Ser Gln Pro Arg Gln Xaa Arg Gly Ser Gly Ala Leu Pro Cys Glu
Val Cys Ser Ala Val Leu Leu Thr Cys Leu Arg Lys Ile Ser Gly Ser
Leu Cys Val
     50
<210> 564
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring bamino acids
<400> 564
Met Ser Asn Thr Leu Leu Ser Gln Trp Leu Leu Leu Thr Leu Phe
                                     10
Lys Cys Ile Ile Leu Pro Leu Asn Leu Xaa Pro Ile Ie Arg Thr Ile
Pro Asp Trp Ser Pro Glu Leu Gly Thr Asn Thr
<210> 565
<211> 74
<212> PRT
<213> Homo sapiens
```

Leu Lys Gly Lys

<400> 565

Met Leu His Leu Ala Ala Met TrpTrp Ala Cys Val Thr Thr Leu Val 1 5 10 15

Phe Thr Leu Val Ser Lys Leu Phe Ile Pro Leu Lys Ser Ser Met Asp 20 25 30

Gly Glu Met Ser Leu Asp Pro His SerCys Val Leu Val Cys Ile Cys 35 40 45

Phe Pro Leu Arg Phe Val Phe Val Ser Cys Phe Glu Leu Tyr Leu Val 50 55 60

Gln Ser Ile Val Lys Leu Ser Gln Gln Leu 65 70

<210> 566

<211> 169

<212> PRT

<213> Homo sapiens

<400> 566

Met Leu Ala Gly Ala Gly Arg Pro Gly Leu Pro Gln Gly Arg His Leu 1 5 10 15

Cys Trp Leu Cys Ala Phe Thr Leu Lys Leu<br/>Cys Gln Ala Glu Ala 20 25 30

Pro Val Glu Glu Lys Leu Ser Ala Ser Thr Ser Asn Leu Pro Cys 35 40 45

Trp Leu Val Glu Glu Phe Val Val Ala Glu Glu Cys Ser ProCys Ser 50 55 60

Asn Phe Arg Ala Lys Thr Thr Pro Glu Cys Gly Pro Thr Gly Tyr Val 65 70 75 80

Glu Lys Ile Thr Cys Ser Ser Ser Lys Arg Asn Glu Phe Lys Ser Leu 85 90 95

Pro Leu Ser Phe Asp Gly Thr Thr Leu Ile Leu Glu Val Arg Arg Gly 100 105 110

Cys Arg Val Cys Gly Pro Asp Leu Arg Leu Ser Cys His His Ser Ser 115 120 125

Ala Thr Ile Gly Gln Lys Gly Ser Gly Lys Gly Pro Glu Ala Asn Arg 130 135 140

Val His Ile Ala Thr Phe His Pro Cys Ile Leu Gly Leu Arg Asp Pro 145 150 155 160

Ile Ser Asp Ser Glu Ser Glu Met Asp 165

```
<210> 567
```

<211> 127

<212> PRT

<213> Homo sapiens

<400> 567

Met Gly Gln Val Trp Arg Val Pro Pro Leu Leu Ser Val Gln Val

Phe Leu Thr Met Ala His Ala Phe His Gln Ala Pro Glu Leu Gln Trp

Leu Gly Leu Trp Phe Trp Val Arg Leu Phe Ala Gly Gly Asp Gly Gly

Leu His Leu Asn Ile Ser Ser Val Thr Leu Pro Leu Leu His Gly Lys 55

Gln Leu Ser Arg Glu Val Pro Ser Cys Gln Gly Lys Pro Arg Leu Gly

Arg Pro Pro Tyr Lys Glu Pro Gln Asp Cys Ser His Gly Cys His Leu

Ser Trp Lys Gly Arg Phe Met Gly Phe Pro Gly Thr Pro Arg Leu Ser

Trp Pro Arg Gly Lys Arg Trp Leu Leu Gln Glu Phe Asp Leu Ser 120

<210> 568

<211> 43

<212> PRT

<213> Homo sapiens

<400> 568

Met Ser Ala Leu Ser Phe Thr Ser Tyr Phe Leu LeuLeu Leu Arg Val

Lys Pro Val Glu Val Ser Gly Ser Ile Pro His Pro Glu Gln Pro Asn

Val Leu Cys Leu Val Leu Pro Thr Phe Gly Tyr 35 40

<210> 569

<211> 215

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE
```

<222> (83)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 569

Met Tyr Gly Lys Ser Ser Thr Arg Ala Val Leu Leu Leu Gly Ile 1 5 10 15

Gln Leu Thr Ala Leu Trp Pro Ile Ala Ala Val Glu Ile Tyr Thr Ser 20 25 30

Arg Val Leu Glu Ala Val Asn Gly Thr Asp Ala Arg Leu Lys Cys Thr  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Phe Ser Ser Phe Ala Pro Val Gly Asp Ala Leu Thr Val Thr Trp Asn 50 55 60

Phe Arg Pro Leu Asp Gly Gly Pro Glu Gln Phe Val Phe Tyr Tyr His 65 70 75 80

Ile Asp Xaa Phe Gln Pro Met Ser Gly Arg Phe Lys Asp Arg Val Ser 85 90 95

Trp Asp Gly Asn Pro Glu Arg Tyr Asp Ala Ser Ile Leu Leu Trp Lys 100 105 110

Leu Gln Phe Asp Asp Asn Gly Thr Tyr Thr Cys Gln Val Lys Asn Pro 115 120 13

Pro Asp Val Asp Gly Val Ile Gly Asp Ile Arg Leu Xaa Val Val His 130 135 140

Thr Val Arg Phe Ser Glu Ile His Phe Leu Ala Leu Ala Ile Gly Ser 145 150 155 160

Ala Cys Ala Leu Met Ile Ile Ile Val Ile Val Val Val Leu Phe Gln 165 170 175

His Tyr Arg Lys Lys Arg Trp Ala Glu Arg Ala His Lys Val Val Glu
180 185 190

Ile Lys Ser Lys Glu Glu Glu Arg Leu Asn Gln Glu Lys Lys Val Ser 195 200 205

Val Tyr Leu Glu Asp Thr Asp 210 215

<210> 570

<211> 60

<212> PRT

<213> Homo sapiens

<400> 570

Met Leu Tyr Trp Gly Asn Val Ala Leu Val Leu Pro Thr Pro Tyr Leu 1 5 10 15

His Leu Ser Leu Thr Leu Leu Ser Pro Glu Trp Leu Gly Glu Met 20 25 30

Gly Arg Gly Leu Pro Trp Pro Gly His Leu Val Ala Ala Trp Leu Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

His Ile Ala Asn Glu Leu Gly Arg Gly Ala Ile Phe 50 55 60

<210> 571

<211> 64

<212> PRT

<213> Homo sapiens

<400> 571

Met Asn Ala Ser Cys Ser Leu Ala His Phe Glu His Ser Gly Met Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Leu Val His Leu Phe Ile Ile Val Ser Thr Val Pro Ser Cys  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30 \hspace{1.5cm}$ 

Phe Lys Lys Tyr Met Ala Phe Ile Ile Tyr Pro Ala Phe Ser Cys His
35 40 45

Phe Asn Lys Ser Met Cys Leu Ile Gln Leu Leu His Ser Ser Gln Lys
50 55 60

<210> 572

<211> 79

<212> PRT

<213> Homo sapiens

<400> 572

Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile Cys Leu 1 5 10 15

Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp Gly Gly His SerTyr 20 25 30

Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu Leu Tyr
35 40 45

Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser Thr Ser 50 55 60

```
Leu Lys Val Lys Ala Thr Val Ile Gly Leu Pro Thr Asn Met Ser
                     70
<210> 573
<211> 47
<212> PRT
<213> Homo sapiens
<400> 573
Met Phe Tyr Pro Pro Cys Pro Phe Phe Pro Gln Leu Cys Phe Cys Ile
Phe Phe Leu Gly Lys Cys Lys Leu Ser Leu Ser Phe Met Thr Cys Glu
Ile Ser Val Ser Leu Glu Phe Val Arg Arg Gly Asn His Ala
                             40
<210> 574
<211> 100
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (51)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 574
Met Gly Met Ile Leu Val Leu Ala Ser Phe Leu Ala His Pro Val Glu
Ala Leu Ala Gln Ala Val Ala Leu Gly Gln Gln Leu Ala Leu Leu
Gly Val Gln Xaa His Ala Val Glu Gly Phe Leu Gln Leu Gln Xaa Cys
         35
                             40
```

Phe Ala Xaa Leu Phe Val Phe Glu Gly Ala Leu Leu Ala His Leu Gly 55

His Phe Phe Val Glu Pro Gly Ala Ala Gln Gly Gln Leu Leu Asp Leu

Gly Leu Xaa Arg Arg Glu Leu Gly Phe Gln Phe Ala Leu Leu Ala Arg 85

Phe Val Leu Gln

<210> 575

<211> 10

<212> PRT

<213> Homo sapiens

<400> 575

Met Gly Leu Phe Leu Phe Leu Val Ser Ser 5

<210> 576

<211> 40

<212> PRT

<213> Homo sapiens

<400> 576

Met Ile Ile Leu His Ile Val Val Cys Leu Phe Thr Ile Ser Ile Ile

Glu Glu Gln Lys Glu Glu Ile Leu Cys Ser Thr Lys Ser Gln Ala Glu

Lys Thr Val Thr His Ile Glu Gln 35

<210> 577

<211> 65

<212> PRT

<213> Homo sapiens

<400> 577

Met Leu Ser Pro Lys Ser Pro Arg Met Leu Leu Pro Cys Leu Leu Gln

Pro Leu Val Val Ala Asn Ile Pro Arg Val Pro Trp Leu Ala Asp Glu 20

Ser Leu Asn Pro Thr Pro Ile Ile Thr Trp Gln Ser Pro Cys Val Ala 40

```
Leu
 65
<210> 578
<211> 108
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (63)
<223> Xaa equals any of the naturally occurring bamino acids
Met Gly Ala Ala Lys Val Trp Gly Glu Val Gly Arg Trp Leu Val Ile
Ala Leu Ile Gln Leu Ala Lys Ala Val Leu Arg Met Leu Leu Leu Leu
Trp Phe Lys Ala Gly Leu Gln Thr Ser Pro Pro Ile Val Pro Leu Asp
Arg Glu Thr Arg His Ser Pro Arg Met Val Thr Thr Ala Xaa Xaa Thr
Met Ser Ser Pro Thr Trp Gly Ser Gly Gln Thr Gly Trp Cys Glu Pro
Ser Arg Thr Arg Arg Pro Cys Thr Pro Gly Thr Gly Glu Leu Pro Ser
Ser Gly Arg Asp Gly Ser Ser Ser Ile Thr Arg Ser
            100
                                105
<210> 579
<211> 81
<212> PRT
<213> Homo sapiers
<400> 579
Met Asn Gln Leu Met Phe Gln Asp Leu Cys Cys Leu Cys Leu Phe
  1
                                     10
```

Gln Leu Cys Pro Asn Phe Pro Phe Pro Thr Arg Thr Leu Val Thr Gly

Val Ile Gly Leu Ile Ser Leu Leu Arg Lys Thr Tyr Ser Cys Val Asn

Leu Cys Lys Val Met Leu Pro Val Lys Lys Tyr Ser Thr Val Ser Thr

Val Leu Cys Arg Asn Met Lys Leu Asn Gly Lys Asn Val Leu Met Phe

Val Val Met Leu Leu Gly Gln Trp Met Gly Lys Leu Pro Lys Leu Ser

Pro

<210> 580

<211> 941

<212> PRT

<213> Homo sapiens

<400> 580

Met Val Phe Leu Pro Leu Lys Trp Ser Leu Ala Thr MetSer Phe Leu

Leu Ser Ser Leu Leu Ala Leu Leu Thr Val Ser Thr Pro Ser Trp Cys

Gln Ser Thr Glu Ala Ser Pro Lys Arg Ser Asp Gly Thr ProPhe Pro

Trp Asn Lys Ile Arg Leu Pro Glu Tyr Val Ile Pro Val His Tyr Asp

Leu Leu Ile His Ala Asn Leu Thr Thr Leu Thr Phe Trp Gly Thr Thr

Lys Val Glu Ile Thr Ala Ser Gln Pro Thr Ser Thr Ile Ile Leu His

Ser His His Leu Gln Ile Ser Arg Ala Thr Leu Arg Lys Gly Ala Gly 105

Glu Arg Leu Ser Glu Glu Pro Leu Gln Val Leu Glu His Pro Pro Gln

Glu Gln Ile Ala Leu Leu Ala Pro Glu Pro Leu Leu Val Gly Leu Pro 135

Tyr Thr Val Val Ile His Tyr Ala Gly Asn Leu Ser Glu Thr Phe His 150 145

Gly Phe Tyr Lys Ser Thr Tyr Arg Thr Lys Glu Gly Glu Leu Arg Ile

Leu Ala Ser Thr Gln Phe Glu Pro Thr Ala Ala Arg Met Ala Phe Pro

| 180 | 185 | 190 |
|-----|-----|-----|
|     |     |     |

- Cys Phe Asp Glu Pro Ala Phe Lys Ala Ser Phe Ser Ile Lys Ile Arg
- Arg Glu Pro Arg His Leu Ala Ile Ser Asn Met Pro Leu Val Lys Ser 210 215 220
- Val Thr Val Ala Glu Gly Leu Ile Glu Asp His Phe Asp Val Thr Val 225 230 235 240
- Lys Met Ser Thr Tyr Leu Val Ala Phe Ile Ile Ser Asp Phe Glu Ser 245 250 255
- Val Ser Lys Ile Thr Lys Ser Gly Val Lys Val Ser Val Tyr Ala Val 260 265 270
- Pro Asp Lys Met Asn Gln Ala Asp Tyr Ala Leu Asp Ala Ala Val Thr 275 280 285
- Leu Leu Glu Phe Tyr Glu Asp Tyr Phe Ser Ile Pro Tyr Pro Leu Pro 290 295 300
- Lys Gln Asp Leu Ala Ala Ile Pro Asp Phe Gln Ser Gly Ala Met Glu 305 310 315 320
- Asn Trp Gly Leu Thr Thr Tyr Arg Glu Ser Ala Leu Leu Phe Asp Ala 325 330 335
- Glu Lys Ser Ser Ala Ser Ser Lys Leu Gly Ile Thr Met Thr Val Ala 340 345 350
- His Glu Leu Ala His Gln Trp Phe Gly Asn Leu Val Thr Met Glu Trp 355 360 365
- Trp Asn Asp Leu Trp Leu Asn Glu Gly Phe Ala Lys Phe Met Glu Phe 370 375 380
- Val Ser Val Ser Val Thr His Pro Glu Leu Lys Val Gly Asp Tyr Phe 385 390 395 400
- Phe Gly Lys Cys Phe Asp Ala Met Glu Val Asp Ala Leu Asn Ser Ser 405 410 415
- His Pro Val Ser Thr Pro Val Glu Asn Pro Ala Gln Ile Arg Glu Met 420 425 430
- Phe Asp Asp Val Ser Tyr Asp Lys Gly Ala Cys Ile Leu Asn Met Leu 435 440 445
- Arg Glu Tyr Leu Ser Ala Asp Ala Phe Lys Ser Gly Ile Val Gln Tyr 450 455 460
- Leu Gln Lys His Ser Tyr Lys Asn Thr Lys Asn GluAsp Leu Trp Asp 465 470 475
- Ser Met Ala Ser Ile Cys Pro Thr Asp Gly Val Lys Gly Met Asp Gly

495 490 495

Phe Cys Ser Arg Ser Gln His Ser Ser Ser SerSer His Trp His Gln 505 500 Glu Gly Val Asp Val Lys Thr Met Met Asn Thr Trp Thr Leu Gln Arg Gly Phe Pro Leu Ile Thr Ile Thr Val Arg Gly Arg Asn ValHis Met 535 Lys Gln Glu His Tyr Met Lys Gly Ser Asp Gly Ala Pro Asp Thr Gly Tyr Leu Trp His Val Pro Leu Thr Phe Ile Thr Ser Lys Ser Asp Met 570 Val His Arg Phe Leu Leu Lys Thr Lys Thr Asp Val Leu Ile Leu Pro 585 Glu Glu Val Glu Trp Ile Lys Phe Asn Val Gly Met Asn Gly Tyr Tyr 600 Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu Lys Gly Thr His Thr Ala Val Ser Ser Asn Asp Arg Ala Ser Leu Ile 635 Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro 665 Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu 680 Lys Arg Asp Met Asn Glu Val Glu Thr Gln Phe Lys Ala Phe Leu Ile 695 Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly 715 Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu Leu Leu Ala Cys Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg 745 Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro Val Asp Val Thr Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe

Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln

785 790 795 800

Ile Glu Phe Ala Leu Cys Arg Thr Gln Asn Lys Glu Lys Leu Gln Trp 805 810 815

Leu Leu Asp Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe 820 825 830

Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu 835 840 845

Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe 850 860

Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn 865 870 875 880

Gln Phe Ser Thr Arg Thr Arg Leu Glu Glu Val Lys Gly Phe Phe Ser 885 890 895

Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile 900 905 910

Glu Thr Ile Glu Glu Asn Ile Gly Trp Met Asp Lys Asn Phe Asp Lys 915 920 925

Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met 930 935 940

<210> 581

<211> 612

<212> PRT

<213> Homo sapiens

<400> 581

Met Ala Ala Gly Arg Leu Pro Ser Ser Trp Ala Leu Phe Ser Pro 1 15

Leu Leu Ala Gly Leu Ala Leu Leu Gly Val Gly Pro Val Pro Ala Arg 20 25 30

Ala Leu His Asn Val Thr Ala Glu Leu Phe Gly Ala Glu Ala Trp Gly 35 40 45

Thr Leu Ala Ala Phe Gly Asp Leu Asn Ser Asp Lys Gln Thr Asp Leu 50 55 60

Phe Val Leu Arg Glu Arg Asn Asp Leu Ile Val Phe Leu Ala Asp Gln 65 70 75 80

Asn Ala Pro Tyr Phe Lys Pro Lys Val Lys Val Ser Phe Lys Asn His

Ser Ala Leu Ile Thr Ser Val Val Pro Gly Asp Tyr Asp Gly Asp Ser 100 105 110

- Gln Met Asp Val Leu Leu Thr Tyr Leu Pro Lys Asn Tyr Ala Lys Ser 115 120 125
- Glu Leu Gly Ala Val Ile Phe Trp Gly Gln Asn Gln Thr Leu Asp Pro 130 135 140
- Asn Asn Met Thr Ile Leu Asn Arg Thr Phe Gln Asp Glu Pro Leu Ile 145 150 155 160
- Met Asp Phe Asn Gly Asp Leu Ile Pro Asp Ile Phe Gly Ile Thr Asn 165 170 175
- Glu Ser Asn Gln Pro Gln Ile Leu Leu Gly Gly Asn Leu Ser Trp His 180 185 190
- Pro Ala Leu Thr Thr Thr Ser Lys Met Arg Ile Pro His Ser His Ala 195 200 205
- Phe Ile Asp Leu Thr Glu Asp Phe Thr Ala Asp Leu Phe Leu Thr Thr 210 215 220
- Leu Asn Ala Thr Thr Ser Thr Phe Gln Phe Glu Ile Trp Glu Asn Leu 225 230 235
- Asp Gly Asn Phe Ser Val Ser Thr Ile Leu Gu Lys Pro Gln Asn Met 245 250 255
- Met Val Val Gly Gln Ser Ala Phe Ala Asp Phe Asp Gly Asp Gly His 260 265 270
- Met Asp His Leu Leu Pro Gly Cys Glu Asp Lys An Cys Gln Lys Ser 275 280 285
- Thr Ile Tyr Leu Val Arg Ser Gly Met Lys Gln Trp Val Pro Val Leu 290 295 300
- Gln Asp Phe Ser Asn Lys Gly Thr Leu Trp Gly Phe Val Pro Phe Val 305 310 315
- Asp Glu Gln Gln Pro Thr Glu Ile Pro Ile Pro Ile Thr Leu His Ile 325 330 335
- Gly Asp Tyr Asn Met Asp Gly Tyr Pro Asp Ala Leu Val Ile Leu  $\Psi$ s 340 345 350
- Asn Thr Ser Gly Ser Asn Gln Gln Ala Phe Leu Leu Glu Asn Val Pro 355 360 365
- Cys Asn Asn Ala Ser Cys Glu Glu Ala Arg Arg Met Phe Lys Val Tyr 370 375 380
- Trp Glu Leu Thr Asp Leu Asn Gln Ile Lys Asp Ala Met Val Ala Thr 385 390 395 400
- Phe Phe Asp Ile Tyr Glu Asp Gly Ile Leu Asp Ile Val Val Leu Ser 405 410 415

```
Lys Gly Tyr Thr Lys Asn Asp Phe Ala Ile His Thr Leu Lys Asn Asn
Phe Glu Ala Asp Ala Tyr Phe Val Lys Val Ile Val Leu Ser Gly Leu
                            440
Cys Ser Asn Asp Cys Pro Arg Lys Ile Thr Pro Phe Gly Val Asn Gln
    450
                        455
Pro Gly Pro Tyr Ile Met Tyr Thr Thr Val Asp Ala Asn Gly Tyr Leu
Lys Asn Gly Ser Ala Gly Gln Leu Ser Gln Ser Ala His Leu Ala Leu
Gln Leu Pro Tyr Asn Val Leu Gly Leu Gly Arg Ser Ala Asn Phe Leu
                                505
Asp His Leu Tyr Val Gly Ile Pro Arg Pro Ser Gly Glu Lys Ser Ile
Arg Lys Gln Glu Trp Thr Ala Ile Ile Pro Asn Ser Gln Leu Ile Val
Ile Pro Tyr Pro His Asn Val Pro Arg Ser Trp Ser Ala Lys Leu Tyr
Leu Thr Pro Ser Asn Ile Val Leu Leu Thr Ala Ile Ala Leu Ile Gly
Val Cys Val Phe Ile Leu Ala Ile Ile Gly Ile Leu His Trp Gln Glu
                                585
Lys Lys Ala Asp Asp Arg Glu Lys Arg Gln Glu Ala His Arg Phe His
Phe Asp Ala Met
    610
<210> 582
<211> 267
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (172)
<223> Xaa equals any of the naturally occurring Lamino acids
```

<220> <221> SITE <222> (175)

<223> Xaa equals any of the naturally occuring L-amino acids

Cys Lys Gln Ala Thr Leu Gln Phe Cys Val Val Lys Pro Leu Met Ala  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Val Ser Thr Val Val Leu Gln Ala Phe Gly Lys Tyr Arg Asp Gly Asp 50 55 60

Phe Asp Val Thr Ser Gly Tyr Leu Tyr Val Thr Ile Ile Tyr Asn Ile 65 70 75 80

Ser Val Ser Leu Ala Leu Tyr Ala Leu Phe Leu Phe Tyr Phe Ala Thr 85 90 95

Arg Glu Leu Leu Ser Pro Tyr Ser Pro Val Leu Lys Phe Phe Met Val 100 105 110

Lys Ser Val Ile Phe Leu Ser Phe Trp Gln Gly Met Leu Leu Ala Ile 115 120 125

Leu Glu Lys Cys Gly Ala Ile Pro Lys Ile His Ser Ala Arg Val Ser 130 135 140

Val Gly Glu Gly Thr Val Ala Ala Gly Tyr Gln Asp Phe Ile Ile Cys 145 150 155 160

Val Glu Met Phe Phe Ala Ala Leu Ala Leu Arg Xaa Ala Phe Xaa Tyr 165 170 175

Lys Val Tyr Ala Asp Lys Arg Leu Asp Ala Gln Gly Arg Cys Ala Pro 180 185 190

Met Lys Ser Ile Ser Ser Ser Leu Lys Glu Thr Met Asn Pro His Asp 195 200 205

Ile Val Gln Asp Ala Ile His Asn Phe Ser Pro Ala Tyr Gln Gln Tyr
210 215 220

Thr Gln Gln Ser Thr Leu Glu ProGly Pro Thr Trp Arg Gly Gly Ala 225 230 235 240

His Gly Leu Ser Arg Ser His Ser Leu Ser Gly Ala Arg Asp Asn Glu 245 250 255

Lys Thr Leu Leu Leu Ser Ser Asp Asp Glu Phe 260 265

<210> 583

<211> 53

<212> PRT

<213> Homo sapiens

<400> 583 Met Leu Val Leu Met Thr Thr Cys Ile Leu Ala Ala Val Cys Val His

Thr Ala Gln Cys Ala Pro Asp Ser Arg Met Asp Asn Asp Cys Pro Ser

His Gln Ala Gln Ile His Phe Arg Ala Ser Glu Val Arg Arg Gly Trp

Thr Phe Asn His Asp 50

<210> 584

<211> 196

<212> PRT

<213> Homo sapiens

<400> 584

Met Ala Phe Arg Tyr Leu Ser Trp Ile Leu Phe Pro Leu Leu Gly Cys

Tyr Ala Val Tyr Ser Leu Leu Tyr Leu GluHis Lys Gly Trp Tyr Ser

Trp Val Leu Ser Met Leu Tyr Gly Phe Leu Leu Thr Phe Gly Phe Ile

Thr Met Thr Pro Gln Leu Phe Ile Asn Tyr Lys Leu LysSer Val Ala

His Leu Pro Trp Arg Met Leu Thr Tyr Lys Ala Leu Asn Thr Phe Ile 70

Asp Asp Leu Phe Ala Phe Val Ile Lys Met Pro Val Met Tyr ArgIle

Gly Cys Leu Arg Asp Asp Val Val Phe Phe Ile Tyr Leu Tyr Gln Arg 105

Trp Ile Tyr Arg Val Asp Pro Thr Arg Val Asn Glu Phe Gly Met Ser

Gly Glu Asp Pro Thr Ala Ala Ala Pro Val Ala Glu Val Pro Thr Ala 135

Ala Gly Ala Leu Thr Pro Thr Pro Ala Pro Thr Thr Thr Ala Thr 150 145

Arg Glu Glu Ala Ser Thr Ser Leu Pro Thr Lys Pro Thr Gln Gly Ala 170

Ser Ser Ala Ser Glu Pro Gln Glu Ala Pro Pro Lys Pro Ala Glu Asp

180 185 190

Lys Lys Lys Asp 195

<210> 585

<211> 52

<212> PRT

<213> Homo sapiens

<400> 585

Met His Cys His Ser Ala Leu Gly Pro Met Ser Thr Pro Val Leu Pro 1 5 10 15

Phe Ser Gly Ile Gly Leu Ala Phe Leu Cys Leu Cys Leu Ala Ala Ser 20 25 30

Met Val Asp Leu Lys Cys Leu Gly Met Asn Ser Thr Leu Leu Gln Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Ile Lys Glu 50

<210> 586

<211> 72

<212> PRT

<213> Homo sapiens

<400> 586

Met Ala Arg Gly Cys Val Cys Ser Leu Cys Ala Ser Val Cys Ile Phe 1 5 10 15

Leu Ser Ser Leu Phe Pro Leu Leu Pro Ser Val His Ser Val Asn Ile 20 25 30

Ile Ser Cys Leu Leu Ser Lys Cys Phe Glu Gly Leu Glu Leu Met 35 40 45

Cys Glu His Leu Tyr Gln Leu Ser Gln Leu His Val Leu His His Ile  $50 \hspace{1cm} 55 \hspace{1cm} 60$ 

Phe Ser Tyr Leu Leu Cys Thr Pro

<210> 587

<211> 87

<212> PRT

<213> Homo sapiens

<400> 587

Met Gly Leu His Leu Arg Pro Tyr Arg Val Gly bu Leu Pro Asp Gly

1 5 10 15

Leu Leu Phe Leu Leu Leu Leu Met Leu Leu Ala Asp Pro Ala Leu 20 25 30

Pro Ala Gly Arg His Pro Pro Val Val Leu Val Pro Gy Asp Leu Gly 35 40 45

Asn Gln Leu Glu Ala Lys Leu Asp Lys Pro Thr Val Val His Tyr Leu 50 60

Cys Ser Lys Lys Thr Glu Ser Tyr Phe Thr Ile Trp Leu Asn Leu Glu 65 70 75 80

Leu Leu Pro Val His His

<210> 588

<211> 40

<212> PRT

<213> Homo sapiens

<400> 588

Met Gly Pro Ser Gln Arg Glu Val Thr Val Gln Trp His Arg Ala Leu

1 5 10 15

Phe Leu Leu Pro Leu Leu Leu Ser Thr Arg Thr Glu Thr Lys Asn 20 25 30

Phe Gly Phe Lys Trp Leu Lys Asp 35 40

<210> 589

<211> 525

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (210)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 589

Met Leu Ala Phe Pro Leu Leu Thr Gly Leu Ile Ser Phe Arg Glu
1 5 10 15

Lys Arg Leu Gln Asp Val Gly Thr Pro Ala Ala Arg Ala Arg Ala Phe 20 25 30

Phe Thr Ala Pro Val Val Phe His Leu Asn Ile Leu Ser Tyr Phe 35 40 45

Ala Phe Leu Cys Leu Phe Ala Tyr Val Leu Met Val Asp Phe Gln Pro

| 50 | 55 | 60 |
|----|----|----|
|    |    |    |

- Val Pro Ser Trp Cys Glu Cys Ala Ile Tyr Leu Trp Leu Phe Ser Leu 65 70 75 80
- Val Cys Glu Glu Met Arg Gln Leu Phe Tyr Asp Pro Asp Glu Cys Gly 85 90 95
- Leu Met Lys Lys Ala Ala Leu Tyr Phe Ser Asp Phe Trp Asn Lys Leu 100 105 110
- Asp Val Gly Ala Ile Leu Leu Phe Val Ala Gly Leu Thr Cys Arg Leu 115 120 125
- Ile Pro Ala Thr Leu Tyr Pro Gly Arg Val Ile Leu Ser Leu Asp Phe 130 135 140
- Ile Leu Phe Cys Leu Arg Leu Met His Ile Phe Thr Ile Ser Lys Thr 145 150 155 160
- Leu Gly Pro Lys Ile Ile Ile Val Lys Arg Met Met Lys Asp Val Phe 165 170 175
- Phe Phe Leu Phe Leu Leu Ala Val Trp Val Val Ser Phe Gly Val Ala 180 185 190
- Lys Gln Ala Ile Leu Ile His Asn Glu Arg Arg Val Asp Trp Leu Phe 195 200 205
- Arg Xaa Ala Val Tyr His Ser Tyr Leu Thr Ile Phe Gly Gln Ile Pro 210 215 220
- Gly Tyr Ile Asp Gly Val Asn Phe Asn Pro Glu His Cys Ser Pro Asn 225 230 235 240
- Gly Thr Asp Pro Tyr Lys Pro Lys Cys Pro Glu Ser Asp Ala Thr Gln 245 250 255
- Gln Arg Pro Ala Phe Pro Glu Trp Leu Thr Val Leu Leu Cys Leu 260 265 270
- Tyr Leu Leu Phe Thr Asn Ile Leu Leu Asn Leu Leu Ile Ala Met 275 280 285
- Phe Asn Tyr Thr Phe Gln Gln Val Gln Glu His Thr Asp Gln Ile Trp 290 295 300
- Lys Phe Gln Arg His Asp Leu Ile Glu Glu Tyr His GlyArg Pro Ala 305 310 315 320
- Ala Pro Pro Pro Phe Ile Leu Leu Ser His Leu Gln Leu Phe Ile Lys 325 330 335
- Arg Val Val Leu Lys Thr Pro Ala Lys Arg His LysGln Leu Lys Asn 340 345
- Lys Leu Glu Lys Asn Glu Glu Ala Ala Leu Leu Ser Trp Glu Ile Tyr

355 360 365

Leu Lys Glu Asn Tyr Leu Gln Asn Arg Gln Phe Gln Gln Lys GlnArg 370 375 380

Pro Glu Gln Lys Ile Glu Asp Ile Ser Asn Lys Val Asp Ala Met Val 385 390 395

Asp Leu Leu Asp Leu Asp Pro Leu Lys Arg Ser Gly Ser Met Glu Gln 405 410 415

Arg Leu Ala Ser Leu Glu Glu Gln Val Ala Gln Thr Ala Arg Ala Leu 420 425 430

His Trp Ile Val Arg Thr Leu Arg Ala Ser Gly Phe Ser Ser Glu Ala 435

Asp Val Pro Thr Leu Ala Ser Gln Lys Ala Ala Glu Glu Pro Asp Ala 450 455 460

Glu Pro Gly Gly Arg Lys Lys Thr Glu Glu Pro Gly Asp Ser Tyr His 465 470 475 480

Val Asn Ala Arg His Leu Leu Tyr Pro Asn Cys Pro Val Thr Arg Phe 485 490 495

Pro Val Pro Asn Glu Lys Val Pro Trp Glu Thr Glu Phe Leu Ile Tyr 500 505 510

Asp Pro Pro Phe Tyr Thr Ala Glu Arg Lys Asp Ala Ala 515 520 525

<210> 590

<211> 937

<212> PRT

<213> Homo sapiens

<400> 590

Met Gln Asn Ser Gly Lys Thr Lys Phe LysArg Thr Ser Ile Asp Arg

Leu Met Asn Thr Leu Val Leu Trp Ile Phe Gly Phe Leu Ile Cys Leu 20 25 30

Gly Ile Ile Leu Ala Ile Gly Asn Ser Ile TrpGlu Ser Gln Thr Gly 35  $\phantom{-}40\phantom{+}45\phantom{+}$ 

Asp Gln Phe Arg Thr Phe Leu Phe Trp Asn Glu Gly Glu Lys Ser Ser 50 55 60

Val Phe Ser Gly Phe Leu Thr Phe Trp Ser Tyr Ile Ile Ile Leu Asn 65 70 75 80

Thr Val Val Pro Ile Ser Leu Tyr Val Ser Val Glu Val Ile Arg Leu 85 90 95

- Gly His Ser Tyr Phe Ile Asn Trp Asp Arg Lys Met Tyr Tyr SerArg 110

  Lys Ala Ile Pro Ala Val Ala Arg Thr Thr Thr Leu Asn Glu Glu Leu 125

  Gly Gln Ile Glu Tyr Ile Phe 135

  Ser Asp Lys Thr Gly Thr Leu Thr Gln 140
- Asn Ile Met Thr Phe Lys Arg Cys Ser Ile Asn Gly Arg Ile Tyr Gly
- Glu Val His Asp Asp Leu Asp Gln Lys Thr Glu Ile Thr Gln Glu Lys 165 170 175
- Glu Pro Val Asp Phe Ser Val Lys Ser Gln Ala Asp Arg Glu Phe Gln 180 185 190
- Phe Phe Asp His Asn Leu Met Glu Ser Ile Lys Met Gly Asp Pro Lys 195 200 205
- Val His Glu Phe Leu Arg Leu Leu Ala Leu Cys His Thr Val Met Ser 210 215 220
- Glu Glu Asn Ser Ala Gly Glu Leu Ile Tyr Gln Val Gln Ser Pro Asp 225 230 235 240
- Glu Gly Ala Leu Val Thr Ala Ala Arg Asn Phe Gly Phe Ile Phe Lys 245 250 255
- Ser Arg Thr Pro Glu Thr Ile Thr Ile Glu Glu Leu Gly Thr Leu Val 260 265 270
- Thr Tyr Gln Leu Leu Ala Phe Leu Asp Phe Asn Asn Thr Arg Lys Arg 275 280 285
- Met Ser Val Ile Val Arg Asn Pro Glu Gly Gln Ile Lys Leu Tyr Ser 290 295 300
- Lys Gly Ala Asp Thr Ile Leu Phe Glu Lys Leu His Pro Ser Asn Glu 305 310 315
- Val Leu Leu Ser Leu Thr Ser Asp His Leu Ser Glu Phe Ala Gly Glu 325 330 335
- Gly Leu Arg Thr Leu Ala Ile Ala Tyr Arg Asp Leu Asp Asp Lys Tyr 340 345 350
- Phe Lys Glu Trp His Lys Met Leu Glu Asp Ala Asn Val Ala Thr Glu 355 360 365
- Glu Arg Asp Glu Arg Ile Ala Gly Leu Tyr Glu Glu Ile Glu Arg Asp 370 375 380
- Leu Met Leu Leu Gly Ala Thr Ala Val Glu Asp Lys Leu Gln Glu Gly 385 390 395 400

- Val Ile Glu Thr Val Thr Ser Leu Ser Leu Ala Asn Ile Lys Ile Trp 405 410 415
- Val Leu Thr Gly Asp Lys Gln Glu Thr Ala Ile Asn Ile Gly Tyr Ala 420 425 430
- Cys Asn Met Leu Thr Asp Asp Met Asn Asp Val Phe Val Ile Ala Gly 435
- Asn Asn Ala Val Glu Val Arg Glu Glu Leu Arg Lys Ala Lys Gln Asn 450 455 460
- Leu Phe Gly Gln Asn Arg Asn Phe Ser Asn Gly His Val Val Cys Glu 465 470 475 480
- Lys Lys Gln Gln Leu Glu Leu Asp Ser Ile Val Glu Glu Thr Ile Thr 485 490 495
- Gly Asp Tyr Ala Leu Ile Ile AsnGly His Ser Leu Ala His Ala Leu 500 505 510
- Glu Ser Asp Val Lys Asn Asp Leu Leu Glu Leu Ala Cys Met Cys Lys 515 525
- Thr Val Ile Cys Cys Arg Val Thr Pro Leu GlnLys Ala Gln Val Val 530 540
- Glu Leu Val Lys Lys Tyr Arg Asn Ala Val Thr Leu Ala Ile Gly Asp 545 550 550
- Gly Ala Asn Asp Val Ser Met Ile Lys Ser Ala His IleGly Val Gly 565 570 575
- Ile Ser Gly Gln Glu Gly Leu Gln Ala Val Leu Ala Ser Asp Tyr Ser 580 585 590
- Phe Ala Gln Phe Arg Tyr Leu Gln Arg Leu Leu Leu Val HisGly Arg 595 600 605
- Trp Ser Tyr Phe Arg Met Cys Lys Phe Leu Cys Tyr Phe Phe Tyr Lys 610 615 620
- Asn Phe Ala Phe Thr Leu Val His Phe Trp Phe Gly Phe Phe Cys Gly 625 630 635 640
- Phe Ser Ala Gln Thr Val Tyr Asp Gln Trp Phe Ile Thr Leu Phe Asn 645 650 655
- Ile Val Tyr Thr Ser Leu Pro Val Leu Ala Met Gly Ile Phe Asp Gln 660 665 670
- Asp Val Ser Asp Gln Asn Ser Val Asp Cys Pro Gln Leu Tyr Lys Pro 675 680 685
- Gly Gln Leu Asn Leu Leu Phe Asn Lys Arg Lys Phe Phe Ile Cys Val 690 695 700

```
Met His Gly Ile Tyr Thr Ser Leu Val Leu Phe Phe Ile Pro Tyr Gly
705
```

Ala Phe Tyr Asn Val Ala Gly Glu Asp Gly Gln His Ile Ala Asp Tyr

Gln Ser Phe Ala Val Thr Met Ala Thr Ser Leu Val Ile Val Val Ser 740

Val Gln Ile Ala Leu Asp Thr Ser Tyr Trp Thr Phe Ile Asn His Val

Phe Ile Trp Gly Ser Ile Ala Ile Tyr Phe Ser Ile Leu Phe Thr Met

His Ser Asn Gly Ile Phe Gly Ile Phe Pro Asn Gln Phe Pro Phe Val 795

Gly Asn Ala Arg His Ser Leu Thr Gln Lys Cys Ile Trp Leu Val Ile

Leu Leu Thr Thr Val Ala Ser Val Met Pro Val Val Ala Phe Arg Phe 825

Leu Lys Val Asp Leu Tyr Pro Thr Leu Ser Asp Gln Ile Arg Arg Trp

Gln Lys Ala Gln Lys Lys Ala Arg Pro Pro Ser Ser Arg Arg Pro Arg

Thr Arg Arg Ser Ser Ser Arg Arg Ser Gly Tyr Ala Phe Ala His Gln 875

Glu Gly Tyr Gly Glu Leu Ile Thr Ser Gly Lys Asn Met Arg Ala Lys 890

Asn Pro Pro Pro Thr Ser Gly Leu Glu Lys Thr His Tyr Asn Ser Thr 905

Ser Trp Ile Glu Asn Leu Cys Lys Lys Thr Thr Asp Thr Val Ser Ser 915

Phe Ser Gln Asp Lys Thr Val Lys Leu 935 930

<210> 591

<211> 94

<212> PRT

<213> Homo sapiens

<400> 591

Met Leu Leu Ser Phe Tyr Cys Leu Pro Met Val Ser Ile His Ile Phe

Phe Pro Cys Ala His Cys Val Tyr Leu Leu His Ile Ser Cys Ser Leu

Gly Glu Glu Ser Phe Asn Arg Asp Thr Cys Lys Lys Asp Phe Cys Phe

Ser Ile Gln Asn Val Asn Ser Thr Phe Leu Leu Ser Leu Ala Val Phe

Arg Phe Ser Glu Arg Phe Ser Asp Ser Asn Phe Leu Phe Thr Thr Pro

Pro Ile Cys Ser Glu Lys Asn Gly Leu Leu Tyr His Trp Ile

<210> 592

<211> 122

<212> PRT

<213> Homo sapiens

<400> 592

Met Ile Gly Gly Ile Thr Cys Ile Leu Ser Leu Ile Cys Ala Leu Ala

Leu Ala Tyr Leu Asp Gln Arg Ala Glu Arg Ile Leu His Lys Glu Gln

Gly Lys Thr Gly Glu Val Ile Lys Leu Thr Asp Val Lys Asp Phe Ser

Leu Pro Leu Trp Leu Ile Phe Ile Ile Cys Val Cys Tyr Tyr Val Ala

Val Phe Pro Phe Ile Gly Leu Gly Lys Val Phe Phe Thr Glu Lys Phe

Gly Phe Ser Ser Gln Ala Ala Ser Ala Ile Asn Ser Val Val Tyr Val 85

Ile Ser Ala Pro Met Ser Pro Val Phe Gly Leu Leu Val Asp Lys Thr 105 100

Gly Lys Asn Ile Ile Trp Val Leu Cys Ala

<210> 593

<211> 567

<212> PRT

<213> Homo sapiens

<400> 593

Met Ala Pro Leu Ala Leu His Leu Leu Val Leu Val Pro Ile Leu Leu 10

- Ser Leu Val Ala Ser Gln Asp Trp Lys Ala Glu Arg Ser Gln Asp Pro 20 25 30
- Phe Glu Lys Cys Met Gln Asp Pro Asp Tyr Glu Gln Leu Leu Lys Val 35 40 45
- Val Thr Trp Gly Leu Asn Arg Thr Leu Lys Pro Gln Arg Val Ile Val 50 55 60
- Val Gly Ala Gly Val Ala Gly Leu Val Ala Ala Lys Val Leu Ser Asp 65 70 75 80
- Ala Gly His Lys Val Thr Ile Leu Glu Ala Asp Asn Arg Ile Gly Gly 85 90 95
- Arg Ile Phe Thr Tyr Arg Asp Gln Asn Thr Gly Trp Ile Gly Glu Leu 100 105 110
- Gly Ala Met Arg Met Pro Ser Ser His Arg Ile Leu His Lys Leu Cys 115 120 125
- Gln Gly Leu Gly Leu Asn Leu Thr Lys Phe Thr Gln Tyr Asp Lys Asn 130 135 140
- Thr Trp Thr Glu Val His Glu Val Lys Leu Arg Asn Tyr Val Val Glu
  145 150 155 160
- Lys Val Pro Glu Lys Leu Gly Tyr Ala Leu Arg Pro Gln Glu Lys Gly 165 170 175
- His Ser Pro Glu Asp Ile Tyr Gln Met Ala Leu Asn Gln Ala Leu Lys 180 185 190
- Asp Leu Lys Ala Leu Gly Cys Arg Lys Ala Met Lys Lys Phe Glu Arg 195 200 205
- His Thr Leu Leu Glu Tyr Leu Leu Gly GluGly Asn Leu Ser Arg Pro 210 215 220
- Ala Val Gln Leu Leu Gly Asp Val Met Ser Glu Asp Gly Phe Phe Tyr 225 230 235 240
- Leu Ser Phe Ala Glu Ala Leu Arg Ala His Ser CysLeu Ser Asp Arg 245 250 255
- Leu Gln Tyr Ser Arg Ile Val Gly Gly Trp Asp Leu Leu Pro Arg Ala 260 265 270
- Leu Leu Ser Ser Leu Ser Gly Leu Val Leu Leu Asn AlaPro Val Val 275 280 285
- Ala Met Thr Gln Gly Pro His Asp Val His Val Gln Ile Glu Thr Ser 290 295 300
- Pro Pro Ala Arg Asn Leu Lys Val Leu Lys Ala Asp Val Val Leu Leu 305 310 315

Thr Ala Ser Gly Pro Ala Val Lys Arg Ile Thr Phe Ser Pro Pro Leu 325 330 335

Pro Arg His Met Gln Glu Ala Leu Arg Arg Leu His Tyr Val Pro Ala 340 345 350

Thr Lys Val Phe Leu Ser Phe Arg Arg Pro Phe Trp Arg Glu Glu His 355 360

Ile Glu Gly Gly His Ser Asn Thr Asp Arg Pro Ser Arg Met Ile Phe 370 375 380

Tyr Pro Pro Pro Arg Glu Gly Ala Leu Leu Leu Ala Ser Tyr Thr Trp 385 390 395 400

Ser Asp Ala Ala Ala Phe Ala Gly Leu Ser Arg Glu Glu Ala Leu 405 410 415

Arg Leu Ala Leu Asp Asp Val Ala Ala Leu His Gly Pro Val Val Arg 420 425 430

Gln Leu Trp Asp Gly Thr Gly Val Val Lys Arg Trp Ala Glu Asp Gln 435 440 445

His Ser Gln Gly Gly Phe Val Val Gln Pro Pro Ala Leu Trp Gln Thr 450 455 460

Glu Lys Asp Asp Trp Thr Val Pro Tyr Gly Arg Ile Tyr Phe Ala Gly 465 470 475 480

Glu His Thr Ala Tyr Pro His Gly Trp Val Glu Thr Ala Val Lys Ser 485 490 495

Ala Leu Arg Ala Ala Ile Lys Ile Asn Ser Arg Lys Gly Pro Ala Ser 500 505 510

Asp Thr Ala Ser Pro Glu Gly His Ala Ser Asp Met Glu Gly Gln Gly 515 520 525

His Val His Gly Val Ala Ser Ser Pro Ser His Asp Leu Ala Lys Glu 530 540

Glu Gly Ser His Pro Pro Val Gln Gly Gln Leu Ser Leu Gln Asn Thr 545 550 555 560

Thr His Thr Arg Thr Ser His 565

<210> 594

<211> 46

<212> PRT

<213> Homo sapiens

<400> 594

Met Pro Trp Leu Lys Ser Leu Leu His Phe Ser Leu Phe Leu Val Val 1 5 10 15

Phe Ser Thr Leu Ala Val Lys Ser Leu Gly Val Pro Val Ala Ala Gly 20 25 30

Ser Pro Phe Cys Ile Val Asp Val Leu His Phe Ile Leu Leu 35 40 45

<210> 595

<211> 66

<212> PRT

<213> Homo sapiens

<400> 595

Met Ser Trp Val Ile Val Val Ile Ile Trp Gly Tyr Leu Leu Glu Gly 1 5 10 15

His Gly Val Pro Phe Cys Lys Ser Tyr Gly Pro Ser Pro Trp Lys Leu 20 25 30

His Thr His Ala Ala Tyr Asn Ser Gly Ser Ser Gln Val Tyr Arg 35 40 45

Ile Leu Glu Thr Leu Met Ser Gly Ser Thr His Cys Ser Phe Ser Gly 50 55 60

Thr Phe 65

<210> 596

<211> 90

<212> PRT

<213> Homo sapiens

<400> 596

Met Pro Arg Ala Pro Trp Arg Ile Pro Leu Cys Ala Leu Pro Thr Leu  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Cys Leu Gly Ser Pro Leu Pro Ser Gln Pro Thr His Pro Ile Phe Tyr 20 25 30

Asp His Arg Ala Pro Thr Txp Lys Met Ala His Pro Gly Gly Pro Arg  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ser Ser His Ser Pro Arg Thr Trp Arg Thr Pro Ser Ser Gln Thr Lys 50 55 60

Ala Ala Leu Pro Ala Gly Gly Ala Arg Asn Ser Pro Leu Gln Leu Cys
65 70 75 80

Thr Arg Ser Arg Phe Cys Gly Thr Pro Met
85 90

<210> 597

<211> 710

<212> PRT

<213> Homo sapiens

<400> 597

Met Pro Val Pro Trp Phe Leu Leu Ser Leu Ala Leu Gly Arg Ser Pro

Val Val Leu Ser Leu Glu Arg Leu Val Gly Pro Gln Asp Ala Thr His 25

Cys Ser Pro Gly Leu Ser Cys Arg Leu Trp Asp Ser Asp Ile Leu Cys

Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val Leu Ala Pro Thr

His Leu Gln Thr Glu Leu Val Leu Arg CysGln Lys Glu Thr Asp Cys

Asp Leu Cys Leu Arg Val Ala Val His Leu Ala Val His Gly His Trp

Glu Glu Pro Glu Asp Glu Glu Lys PheGly Gly Ala Ala Asp Leu Gly

Val Glu Glu Pro Arg Asn Ala Ser Leu Gln Ala Gln Val Val Leu Ser 125

Phe Gln Ala Tyr Pro Thr Ala Arg Cys Val Leu LeuGlu Val Gln Val 135

Pro Ala Ala Leu Val Gln Phe Gly Gln Ser Val Gly Ser Val Val Tyr 150

Asp Cys Phe Glu Ala Ala Leu Gly Ser Glu Val Arg Ile TrpSer Tyr 165

Thr Gln Pro Arg Tyr Glu Lys Glu Leu Asn His Thr Gln Gln Leu Pro 180

Asp Cys Arg Gly Leu Glu Val Trp Asn Ser Ile Pro Ser Cys TrpAla 200

Leu Pro Trp Leu Asn Val Ser Ala Asp Gly Asp Asn Val His Phe Gly

Leu Ser Leu Tyr Trp Asn Gln Val Gln Gly Pro Pro Lys Pro Arg Trp 235

His Lys Asn Leu Thr Gly Pro Gln Ile Ile Thr Leu Asn His Thr Asp 245

- Leu Val Pro Cys Leu Cys Ile Gln Val Trp Pro Leu Glu Pro Asp Ser 260 265 270
- Val Arg Thr Asn Ile Cys Pro Phe Arg Glu Asp Pro Arg Ala His Gln 275 280 285
- Asn Leu Trp Gln Ala Ala Arg Leu Arg Leu Leu Thr Leu Gln Ser Trp 290 295 300
- Leu Leu Asp Ala Pro Cys Ser Leu Pro Ala Glu Ala Ala Leu Cys Trp 305 310 315 320
- Arg Ala Pro Gly Gly Asp Pro Cys Gln Pro Leu Val Pro Pro Leu Ser 325 330 335
- Trp Glu Asn Val Thr Val Asp Lys Val Leu Glu Phe Pro Leu Leu Lys 340 345
- Gly His Pro Asn Leu Cys Val Gln Val Asn Ser Ser Glu Lys Leu Gln 355 360 365
- Leu Gln Glu Cys Leu Trp Ala Asp Ser Leu Gly Pro Leu Lys Asp Asp 370 375
- Val Leu Leu Glu Thr Arg Gly Pro Gln Asp Asn Arg Ser Leu Cys 385 390 395 400
- Ala Leu Glu Pro Ser Gly Cys Thr Ser Leu Pro Ser Lys Ala Ser Thr 405 410 415
- Arg Ala Ala Arg Leu Gly Glu Tyr Leu Leu Gln Asp Leu Gln Ser Gly 420 425 430
- Gln Cys Leu Gln Leu Trp Asp Asp Asp Leu Gly Ala Leu Trp Ala Cys 435 440 445
- Pro Met Asp Lys Tyr Ile His Lys Arg Trp Ala Leu Val Trp Leu Ala 450 455 460
- Cys Leu Leu Phe Ala Ala Ala Leu Ser Leu Ile Leu Leu Leu Lys Lys 465 470 475 480
- Asp His Ala Lys Gly Trp Leu Arg Leu Leu Lys Gln Asp Val Arg Ser 485 490 495
- Gly Ala Ala Arg Gly Arg Ala Ala Leu Leu Leu Tyr Ser Ala Asp 500 505 510
- Asp Ser Gly Phe Glu Arg Leu Val Gly Ala Leu Ala Ser Ala Leu Cys 515 525
- Gln Leu Pro Leu Arg Val Ala Val Asp Leu Trp Ser Arg Arg Glu Leu 530 535
- Ser Ala Gln Gly Pro Val Ala Trp Phe His Ala Gln Arg Arg Gln Thr 545 550 555 560

Leu Gln Glu Gly Gly Val Val Val Leu Leu Phe Ser Pro Gly Ala Val 570 565

Ala Leu Cys Ser Glu Trp Leu Gln Asp Gly Val Ser Gly Pro Gly Ala 585

His Gly Pro His Asp Ala Phe Arg Ala Ser Leu Ser Cys Val Leu Pro 600

Asp Phe Leu Gln Gly Arg Ala Pro Gly Ser Tyr Val Gly Ala Cys Phe

Asp Arg Leu Leu His Pro Asp Ala Val Pro Ala Leu PheArg Thr Val 635

Pro Val Phe Thr Leu Pro Ser Gln Leu Pro Asp Phe Leu Gly Ala Leu

Gln Gln Pro Arg Ala Pro Arg Ser Gly Arg Leu GlnGlu Arg Ala Glu 665

Gln Val Ser Arg Ala Leu Gln Pro Ala Leu Asp Ser Tyr Phe His Pro 680

Pro Gly Thr Pro Ala Pro Gly Arg Gly Val Gly Pro Gly Ala GlyPro 695

Gly Ala Gly Asp Gly Thr 705

<210> 598

<211> 48

<212> PRT

<213> Homo sapiens

<400> 598

Met Phe Ala Pro Cys Phe Val Asn Leu Ala Leu Phe Tyr Leu Tyr Ile

Asn Ser Cys Asn Leu Leu Asn Leu Thr Ser Ile Asp Pro Phe Gln Gln 25

Lys Gly Lys Phe Lys Met Gln Thr Leu Leu Phe Ala Lys Glu Asp Ser 40

<210> 599

<211> 200

<212> PRT

<213> Homo sapiens

```
<220>
<221> SITE
<222> (144)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (149)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (160)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (173)
<223> Xaa equals any of the naturally occurring Eamino acids
<220>
<221> SITE
<222> (177)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (189)
<223> Xaa equals any of the naturally occurring Lamino acids
Met Phe Phe Leu Cys Leu Val Ala Leu Glu Ile Lys Gly Phe Thr
                                     10
Phe Ser Ala Arg Gly Ala Arg Asp Arg Phe Leu Asn Lys Ser Gly Pro
Gln Pro Gly Lys Lys Met Lys Thr Thr His Cys Lys Gln Pro Leu Phe
Ser Lys Pro Gly Gln Val Arg Gly Ala Leu Arg Lys Ala Arg Gly Arg
Gln Glu Glu Arg Glu Ala Val Gly Met Trp Gly Gly Arg Gly His Ser
                     70
Tyr Pro Glu Tyr Ile Lys Thr Ser Glu Val Thr Glu Val Arg Asp Ser
Pro Lys His Pro Gln Val Gln Pro Phe Leu Thr Thr Arg Val Thr Cys
                                105
Arg Val Pro Gly His Leu Gln Val Leu Glu Ala Leu Cys Gly Ala Trp
Gly Ser Met Phe Lys His Ala Leu Val Val Val Gln Val Pro Arg Xaa
    130
                        135
                                            140
```

Leu Ile Leu Leu His Gly Thr Gln His Trp Ala Ala Xaa Leu Val Pro 165 170 175

Xaa Leu Pro Gl<br/>n Glu Ser Ile Leu Pro Ala Gl<br/>n Ser Xaa Arg Val Thr $180 \hspace{1.5cm} 185 \hspace{1.5cm} 190 \hspace{1.5cm}$ 

Asn Thr Pro Gly Thr Glu Glu Thr 195 200

<210> 600

<211> 467

<212> PRT

<213> Homo sapiens

<400> 600

Met Leu Leu Leu Leu Leu Pro Leu Leu Trp Gly Arg Glu Arg Val 1 5 10 15

Glu Gly Gln Lys Ser Asn Arg Lys Asp Tyr Ser Leu Thr Met Gln Ser 20 25 30

Ser Val Thr Val Gln Glu Gly Met Cys Val His Val Arg Cys Ser Phe 35 40 45

Ser Tyr Pro Val Asp Ser Gln Thr Asp Ser Asp Pro Val His Gly Tyr 50 60

Trp Phe Arg Ala Gly Asn Asp Ile Ser Trp Lys Ala Pro Val Ala Thr 65 70 75 80

Asn Asn Pro Ala Trp Ala Val Gln Glu Glu Thr Arg Asp Arg Phe His 85 90 95

Leu Leu Gly Asp Pro Gln Thr Lys Asn Cys Thr Leu Ser Ile Arg Asp 100 105 110

Ala Arg Met Ser Asp Ala Gly Arg Tyr Phe Phe Arg Met Glu Lys Gly 115 120 125

Asn Ile Lys Trp Asn Tyr Lys Tyr Asp Gln Leu Ser Val Asn Val Thr 130 135 140

Ala Leu Thr His Arg Pro Asn Ile Leu Ile Pro Gly Thr Leu Glu Ser 145 150 155 160

Gly Cys Phe Gln Asn Leu Thr Cys Ser Val Pro Trp Ala Cys Glu Gln 165 170 175

Gly Thr Pro Pro Met Ile Ser Trp Met Gly Thr Ser Val Ser Pro Leu 180 185 190

- His Pro Ser Thr Thr Arg Ser Ser Val Leu Thr Leu Ile Pro Gln Pro 195 200 205
- Gln His His Gly Thr Ser Leu Thr Cys Gln Val Thr Leu Pro Gly Ala 210 215 220
- Gly Val Thr Thr Asn Arg Thr Ile Gln LeuAsn Val Ser Tyr Pro Pro 225 230 235 240
- Gln Asn Leu Thr Val Thr Val Phe Gln Gly Glu Gly Thr Ala Ser Thr 245 250 255
- Ala Leu Gly Asn Ser Ser Ser Leu SerVal Leu Glu Gly Gln Ser Leu 260 265 270
- Arg Leu Val Cys Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Trp 275 280 285
- Thr Trp Arg Ser Leu Thr Leu Tyr Pro Ser Gln ProSer Asn Pro Leu 290 295 300
- Val Leu Glu Leu Gln Val His Leu Gly Asp Glu Gly Glu Phe Thr Cys 305 310 315
- Arg Ala Gln Asn Ser Leu Gly Ser Gln His Val Ser Leu AsnLeu Ser 325 330 335
- Leu Gln Gln Glu Tyr Thr Gly Lys Met Arg Pro Val Ser Gly Val Leu 340 345 350
- Leu Gly Ala Val Gly Gly Ala Gly Ala Thr Ala Leu Val Phe LeuSer 355 360 365
- Phe Cys Val Ile Phe Ile Val Val Arg Ser Cys Arg Lys Lys Ser Ala 370 375 380
- Arg Pro Ala Ala Asp Val Gly Asp Ile Gly Met Lys Asp Ala Asn Thr 385 390 395 400
- Ile Arg Gly Ser Ala Ser Gln Gly Asn Leu Thr Glu Ser Trp Ala Asp 405 410 415
- Asp Asn Pro Arg His His Gly Leu Ala Ala His Ser Ser Gly Glu Glu 420 425 430
- Arg Glu Ile Gln Tyr Ala Pro Leu Ser Phe His Lys Gly Glu Pro Gln 435 440 445
- Asp Leu Ser Gly Gln Glu Ala Thr Asn Asn Glu Tyr Ser Glu Ile Lys 450 455 460

Ile Pro Lys 465

<210> 601

- <211> 802
- <212> PRT
- <213> Homo sapiens
- <400> 601
- Met Leu Gly Ala Arg Ala Trp Leu Gly Arg Val Leu Leu Pro Arg
- Ala Gly Ala Gly Leu Ala Ala Ser Arg Arg Cys Pro Gly Val Trp Pro
- Arg Thr Trp Pro His Arg Ser Pro Ser Arg Gly Ser Ser Ser Arg Asp
- Lys Asp Arg Ser Ala Thr Val Ser Ser Ser Val Pro Met Pro Ala Gly 55
- Gly Lys Gly Ser His Pro Ser Ser Thr Pro Gln Arg Val Pro Asn Arg
- Leu Ile His Glu Lys Ser Pro Tyr Leu Leu Gln His Ala Tyr Asn Pro
- Val Asp Trp Tyr Pro Trp Gly Gln Glu Ala Phe Asp Lys Ala Arg Lys 105
- Glu Asn Lys Pro Ile Phe Leu Ser Val Gly Tyr Ser Thr Cys His Trp
- Cys His Met Met Glu Glu Glu Ser Phe Gln Asn Glu Glu Ile Gly Arg 135
- Leu Leu Ser Glu Asp Phe Val Ser Val Lys Val Asp Arg Œu Glu Arg 155
- Pro Asp Val Asp Lys Val Tyr Met Thr Phe Val Gln Ala Thr Ser Ser 170
- Gly Gly Gry Pro Met Asn Val Trp Leu Thr Pro An Leu Gln Pro 185 180
- Phe Val Gly Gly Thr Tyr Phe Pro Pro Glu Asp Gly Leu Thr Arg Val
- Gly Phe Arg Thr Val Leu Leu Arg Ile Arg Glu Gln Trp Lys Gln An 210
- Lys Asn Thr Leu Leu Glu Asn Ser Gln Arg Val Thr Thr Ala Leu Leu 235 230
- Ala Arg Ser Glu Ile Ser Val Gly Asp Arg Gln Leu Pro Pro Ser Ala
- Ala Thr Val Asn Asn Arg Cys Phe Gln Gln Leu Asp Glu Gly Tyr Asp 265
- Glu Glu Tyr Gly Gly Phe Ala Glu Ala Pro Lys Phe Pro Thr Pro Val

275 280 285

Ile Leu Ser Phe Leu Phe Ser Tyr Trp Leu Ser His Arg Leu Thr Gln 295 Asp Gly Ser Arg Ala Gln Gln Met Ala Leu His Thr Leu Lys Met Met 310 Ala Asn Gly Gly Ile Arg Asp His Val Gly Gln Gly Phe His Arg Tyr 330 Ser Thr Asp Arg Gln Trp His Val Pro His Phe Glu Lys Met Leu Tyr Asp Gln Ala Gln Leu Ala Val Ala Tyr Ser Gln Ala Phe Gln Leu Ser 360 Gly Asp Glu Phe Tyr Ser Asp Val Ala Lys Gly Ile Leu Gln Tyr Val 375 Ala Arg Ser Leu Ser His Arg Ser Gly Gly Phe Tyr Ser Ala Glu Asp 390 Ala Asp Ser Pro Pro Glu Arg Gly Gln Arg Pro Lys Glu Gly Ala Tyr 405 Tyr Val Trp Thr Val Lys Glu Val Gln Gln Leu Leu Pro Glu Pro Val 425 Leu Gly Ala Thr Glu Pro Leu Thr Ser Gly Gln Leu Leu Met Lys His Tyr Gly Leu Thr Glu Ala Gly Asn Ile Ser Pro Ser Gln Asp Pro Lys Gly Glu Leu Gln Gly Gln Asn Val Leu Thr Val Arg Tyr Ser Leu Glu Leu Thr Ala Ala Arg Phe Gly Leu Asp Val Glu Ala Val Arg Thr Leu Leu Asn Ser Gly Leu Glu Lys Leu Phe Gln Ala Arg Lys His Arg Pro 505 Lys Pro His Leu Asp Ser Lys Met Leu Ala Ala Trp Asn Gly Leu Met Val Ser Gly Tyr Ala Val Thr Gly Ala Val Leu Gly Gln Asp Arg Leu 535

Ile Asn Tyr Ala Thr Asn Gy Ala Lys Phe Leu Lys Arg His Met Phe

Asp Val Ala Ser Gly Arg Leu Met Arg Thr Cys Tyr Thr Gly Pro Gly

Gly Thr Val Glu His Ser Asn Pro Pro Cys Trp Gly Phe Leu Glu Asp

550

545

590 585 580

Tyr Ala Phe Val Val Arg Gly Leu Leu Asp Leu Tyr Glu Ala Ser Gln 600

Glu Ser Ala Trp Leu Glu Trp Ala Leu Arg Leu Gln Asp Thr Gln Asp

Arg Leu Phe Trp Asp Ser Gln Gly Gly Gly Tyr Phe Cys Ser Glu Ala

Glu Leu Gly Ala Gly Leu Pro Leu Arg Leu lys Asp Asp Gln Asp Gly

Ala Glu Pro Ser Ala Asn Ser Val Ser Ala His Asn Leu Leu Arg Leu

His Gly Phe Thr Gly His Lys Asp Trp Met Asp Lys Cys Val Cys Leu 680

Leu Thr Ala Phe Ser Glu Arg Met Arg Arg Val Pro Val Ala Leu Pro 695

Glu Met Val Arg Ala Leu Ser Ala Gln Gln Gln Thr Leu Lys Gln Ile 715

Val Ile Cys Gly Asp Arg Gln Ala Lys Asp Thr Lys Ala Leu Val Gln

Cys Val His Ser Val Tyr Ile Pro Asn Lys Val Leu Ile Leu Ala 🖘

Gly Asp Pro Ser Ser Phe Leu Ser Arg Gln Leu Pro Phe Leu Ser Thr 760

Leu Arg Arg Leu Glu Asp Gln Ala Thr Ala Tyr Val Cys Glu Asn Gln

Ala Cys Ser Val Pro Ile Thr Asp Pro Cys Glu Leu Arg Lys Leu Leu

His Pro

<210> 602

<211> 98

<212> PRT

<213> Homo sapiens

<400> 602

Met His Cys Cys Gln Leu Pro Trp Arg Cys Ala Gln Ala Pro Gln Glu

Ala Phe Leu Leu Cys Leu Leu Phe Leu Ile Leu Val Leu Leu 25

Gly Cys Ser Arg Gly Leu Pro Gly His Thr Pro Trp Arg Leu His Pro

Ala Ala Ala Leu Leu Ala Pro Leu Leu His Asp Ala Leu Gly Ala

Cys Gly Phe Gln Gly Pro Glu Tyr Leu Leu Pro Cys Leu Leu Pro Leu

Pro Lys Pro Gly Gln Leu Gln Gly Pro Trp Gly Pro Leu Trp Ala Leu

Leu Pro

<210> 603

<211> 365

<212> PRT

<213> Homo sapiens

<400> 603

Met Phe Val Gly Leu Met Ala Phe Leu Leu Ser Phe Tyr Leu Ile Phe

Thr Asn Glu Gly Arg Ala Leu Lys Thr Ala Thr Ser Leu Ala Glu Gy

Leu Ser Leu Val Val Ser Pro Asp Ser Ile His Ser Val Ala Pro Glu

Asn Glu Gly Arg Leu Val His Ile Ile Gly Ala Leu Arg Thr Ser Lys

Leu Leu Ser Asp Pro Asn Tyr Gly Val His Leu Pro Ala Val Lys Leu

Arg Arg His Val Glu Met Tyr Gln Trp Val Glu Thr Glu Glu Ser Arg

Glu Tyr Thr Glu Asp Gly Gln Val Lys Lys Glu Thr Arg Tyr Ser Tyr

Asn Thr Glu Trp Arg Ser Glu Ile Ile Asn Ser Lys Asn Phe Asp Arg 120

Glu Ile Gly His Lys Asn Pro Ser Ala Met Ala Val Glu Ser Phe Met 135 130

Ala Thr Ala Pro Phe Val Gln Ile Gly Arg Phe Phe Leu Ser Ser Gly 150

Leu Ile Asp Lys Val Asp Asn Phe Lys Ser Leu Ser Leu Ser Lys Leu 170 165

```
Glu Asp Pro His Val Asp Ile Ile Arg Arg Gly Asp Phe Phe Tyr His
180 185 190
```

Ser Glu Asn Pro Lys Tyr Pro Glu Val Gly Asp Leu Arg Val Ser Phe 195 200 205

Ser Tyr Ala Gly Leu Ser Gly Asp Asp Pro Asp Leu Gly Pro Ala His 210 215 220

Val Val Thr Val Ile Ala Arg Gln Arg Gly Asp Gln Leu Val Pro Phe 225 230 235 240

Ser Thr Lys Ser Gly Asp Thr Leu Leu Leu His His Gly Asp Phe 245 250 25

Ser Ala Glu Glu Val Phe His Arg Glu Leu Arg Ser Asn Ser Met Lys 260 265 270

Thr Trp Gly Leu Arg Ala Ala Gly Trp Met Ala Met Phe Met Gly Leu 275 280 285

Asn Leu Met Thr Arg Ile Leu Tyr Thr Leu Val Asp Trp Phe Pro Val 290 295 300

Phe Arg Asp Leu Val Asn Ile Gly Leu Lys Ala Phe Ala Phe Cys Val 305 310 315 320

Ala Thr Ser Leu Thr Leu Leu Thr Val Ala Ala Gly Trp Leu Phe Tyr 325 330 335

Arg Pro Leu Trp Ala Leu Leu Ile Ala Gly Leu Ala Leu Val Pro Ile 340 345 350

Leu Val Ala Arg Thr Arg Val Pro Ala Lys Lys Leu Glu 355 360 365

<210> 604

<211> 608

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (265)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (597)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 604

Met Val Gly Thr Lys Leu Arg Gln Thr Lys Asp Ala Leu Phe Thr Ile  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

- Leu His Asp Leu Arg Pro Gln Asp Arg Phe Ser Ile Ile Gly Phe Ser 20 25 30
- Asn Arg Ile Lys Val Trp Lys Asp His Leu Ile Ser Val Thr Pro Asp 35 40 45
- Ser Ile Arg Asp Gly Lys Val Tyr Ile His His Met Ser Pro Thr Gly 50 55 60
- Gly Thr Asp Ile Asn Gly Val Leu Gln Arg Ala Ile Arg Leu Leu Asn 65 70 75 80
- Lys Tyr Val Ala His Ser Gly Ile Gly Asp Arg Ser ¥1 Ser Leu Ile 85 90 95
- Val Phe Leu Thr Asp Gly Lys Pro Thr Val Gly Glu Thr His Thr Leu 100 105 110
- Lys Ile Leu Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln \( \) Cys Ile
  115
  120
  125
- Phe Thr Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys 130 135 140
- Leu Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu 145 150 155 160
- Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr Pro 165 170 175
- Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val Val Gln
  180 185 190
- Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser Glu Ile Ile 195 200 205
- Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His Leu His Val Glu 210 215 220
- Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile Leu Lys Thr Asp Val 225 230 235 240
- Pro Val Arg Pro Gln Lys Ala Gly Lys Asp Val Thr Gly Ser Pro Arg 245 250 255
- Pro Gly Gly Asp Gly Glu Gly Asp Xaa Asn His Ile Glu Arg Leu Trp 260 265 270
- Ser Tyr Leu Thr Thr Lys Glu Leu Leu Ser Ser Trp Leu Gln Ser Asp 275 280 285
- Asp Glu Pro Glu Lys Glu Arg Leu Arg Gln Arg Ala Gln Ala Leu Ala 290 295 300
- Val Ser Tyr Arg Phe Leu Thr Pro Phe Thr Ser Met Lys Leu Arg Gly 305 310 315 320

Pro Val Pro Arg Met Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala 325 Ala Met Gly Pro Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr 345 Gln Pro Gly Pro Leu Leu Lys Lys Pro Tyr Gln Pro Arg Ile Lys Ile 360 Ser Lys Thr Ser Val Asp Gly Asp Pro His Phe Val Val Asp Phe Pro Leu Ser Arg Leu Thr Val Cys Phe Asn Ile Asp Gly Gln Pro Gly Asp 390 395 Ile Leu Arg Leu Val Ser Asp His Arg Asp Ser Gly Val Thr Val Asn 410 Gly Glu Leu Ile Gly Ala Pro Ala Pro Pro Asn Gly His Lys Lys Gln 425 420 Arg Thr Tyr Leu Arg Thr Ile Thr Ile Leu Ile Asn Lys Pro Glu Arg Ser Tyr Leu Glu Ile Thr Pro Ser Arg Val Ile Leu Asp Gly Gly Asp Arg Leu Val Leu Pro Cys Asn Gln Ser Val Val Val Gly Ser Trp Gly Leu Glu Val Ser Val Ser Ala Asn Ala Asn Val Thr Val Thr Ile Gln 490 Gly Ser Ile Ala Phe Val Ile Leu Ile His Leu Tyr Lys Lys Pro Ala 505 Pro Phe Gln Arg His His Leu Gly Phe Tyr Ile Ala Asn Ser Glu Gly Leu Ser Ser Asn Cys His Gly Leu Leu Gly Gln Phe Leu Asn Gln Asp Ala Arg Leu Thr Glu Asp Pro Ala Gly Pro Ser Gn Asn Leu Thr His 545 Pro Leu Leu Gln Val Gly Glu Gly Pro Glu Ala Val Leu Thr Val 570 Lys Gly His Gln Val Pro Val Val Trp Lys Gn Arg Lys Ile Tyr Asn Gly Glu Glu Gln Xaa Asp Cys Trp Phe Ala Arg Asn Met Pro Pro Asn

600

605

<210> 605

<211> 56

<212> PRT

<213> Homo sapiens

<400> 605

Met Phe Tyr Lys Leu Thr Leu Ile Leu Cys Glu Leu Ser Val Ala Gly
1 5 10 15

Val Thr Gln Ala Ala Ser Gln Arg Pro Leu Gln Arg Leu Pro Arg His
20 25 30

Ile Cys Ser Gln Arg Ser Ser Ser Trp Glu Met Pro Pro Gln Gly Pro 35 40 45

Ala Pro Asp His Val Gly Arg Ala 50 55

<210> 606

<211> 540

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (137)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 606

Met Val Arg Thr Asp Gly His Thr Leu Ser Glu Lys Arg Asn Tyr Gln  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Thr Asn Ser Met Phe Gly Ala Ser Arg Lys Lys Phe Val Glu Gly 20 25 30

Val Asp Ser Asp Tyr His Asp Glu Asn Met Tyr Tyr Ser Gln Ser Ser 35 40 45

Met Phe Pro His Arg Ser Gh Lys Asp Met Leu Ala Ser Pro Ser Thr 50 60

Ser Gly Gln Leu Ser Gln Phe Gly Ala Ser Leu Tyr Gly Gln Gln Ser 65 70 75 80

Ala Leu Gly Leu Pro Met Arg Gly M&t Ser Asn Asn Thr Pro Gln Leu 85 90 95

Asn Arg Ser Leu Ser Gln Gly Thr Gln Leu Pro Ser His Val Thr Pro 100 105 110

Thr Thr Gly Val Pro Thr Met Ser Leu His Thr Pro Pro Ser Pro Ser 115 120 125

Arg Gly Ile Leu Pro Met Asn Pro Xaa Asn Met Met Asn His Ser Gln Val Gly Gln Gly Ile Gly Ile Pro Ser Arg Thr Asn Ser Met Se Ser 150 155 Ser Gly Leu Gly Ser Pro Asn Arg Ser Ser Pro Ser Ile Ile Cys Met 170 Pro Lys Gln Gln Pro Ser Arg Gln Pro Phe Thr Val Asn Se Met Ser Gly Phe Gly Met Asn Arg Asn Gln Ala Phe Gly Met Asn Asn Ser Leu 200 Ser Ser Asn Ile Phe Asn Gly Thr Asp Gly Ser Glu Asn Val Thr Gly Leu Asp Leu Ser Asp Phe Pro Ala Leu Ala Asp Arg Asn Arg Arg Glu 230 235 Gly Ser Gly Asn Pro Thr Pro Leu Ile Asn Pro Leu Ala Gly Arg Ala Pro Tyr Val Gly Met Val Thr Lys Pro Ala Asn Glu Gln Ser Gln Asp Phe Ser Ile His Asn Glu Asp Phe Pro Ala Leu Pro Gly Ser Ser Tyr Lys Asp Pro Thr Ser Ser Asn Asp Asp Ser Lys Ser Asn Leu Asn Thr 290 295 Ser Gly Lys Thr Thr Ser Ser Thr Asp Gly Pro Lys Phe Pro Gly Asp 310 Lys Ser Ser Thr Thr Gln Asn Asn Gln Gln Lys Lys Gly Ile Gln Val Leu Pro Asp Gly Arg Val Thr Asn Ile Pro Gln Gly Met Val Thr 345 Asp Gln Phe Gly Met Ile Gly Leu Leu Thr Phe Ile Arg Ala Ala Glu Thr Asp Pro Gly Met Val His Leu Ala Leu Gly Ser Asp Leu Thr Thr 375 Leu Gly Leu Asn Leu Asn Ser Pro Glu Asn Leu Tyr Pro Lys Phe Ala Ser Pro Trp Ala Ser Ser Pro Cys Arg Pro Gln Asp Ile Asp Phe His 410 Val Pro Ser Glu Tyr Leu Thr Asn Ile His Ile Arg Asp Lys Leu Ala 420 425 430



Ala Ile Lys Leu Gly Arg Tyr Gly Glu Asp Leu Leu Phe Tyr Leu Tyr 435 440 445

Tyr Met Asn Gly Gly Asp Val Leu Gln Leu Leu Ala Ala Val Glu Leu 450 455 460

Phe Asn Arg Asp Trp Arg Tyr His Lys Glu Glu Arg Val Trp Ile Thr 465 470 475 480

Arg Ala Pro Gly Met Glu Pro Thr Met Lys Thr Asn Thr Tyr Glu Arg
485 490 495

Gly Thr Tyr Tyr Phe Phe Asp Cys Leu Asn Trp Arg Lys Val Ala Lys 500 505 510

Glu Phe His Leu Glu Tyr Asp Lys Leu Glu Glu Arg Pro His Leu Pro 515 520 525

Ser Thr Phe Asn Tyr Asn Pro Ala Gln Gln Ala Phe 530 535 540

<210> 607

<211> 19

<212> PRT

<213> Homo sapiens

<400> 607

Met Ala Ala His Ser Val Leu Ser Phe Leu Leu Trp Thr Pro Tyr Ala 1 5 10 15

Leu Lys Ser

<210> 608

<211> 99

<212> PRT

<213> Homo sapiens

<400> 608

Met Leu Phe Phe Leu Ser Leu Phe Leu Ser Leu Leu Thr Leu Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Pro Ser Phe Leu Pro Phe Ser Phe Phe Phe Phe Ser Leu Phe Pro 20 25 30

His Leu Ser Ala Cys Ieu Leu Pro Ser Leu Pro Ser Pro Pro Phe Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Leu Pro Pro Ser Leu Pro Ser Phe Leu Pro Ser Phe 50 55 60

Leu Pro Ser Leu Leu Ser Pro Ser Phe Pro Aa Phe Phe Pro Ser Phe 65 70 75 80

Cys Gln Leu Ala Arg Arg Ser Pro Arg Lys Ser Thr Gln Met Leu Gln
85 90 95

Ser Thr Ser

<210> 609

<211> 66

<212> PRT

<213> Homo sapiens

<400> 609

Met Asn Tyr Ile Phe Leu Leu Met Ala Leu Pro His Leu Ile Ala Ile 1 5 10 15

Ala Leu Thr Trp Gly Arg Tyr Ser Phe Ser Cys Leu Ala Asn Lys Glu 20 25 30

Thr Glu Phe Gln Arg Cys Gln Val Thr Cys Leu Leu His Thr Leu Gly 35 40

Val Leu Met Phe Asn Phe Glu Leu Arg Ser Ile Trp Leu Glu Ser Ser 50 60

Leu His

<210> 610

<211> 72

<212> PRT

<213> Homo sapiens

<400> 610

Met Arg His Thr Cys Ile Val Asn Ile Ala Ala Ser Leu Leu Val Ala 1 5 10 15

Asn Thr Trp Phe Ile Val Val Ala Ala Ile Gln Asp Asn Arg Tyr Ile 20 25 30

Leu Cys Lys Thr Ala Cys Val Ala Ala Thr Phe Phe Ile His Phe Phe 35 40 45

Tyr Leu Ser Val Phe Phe Trp Met Leu Thr Leu Gly Pro His Ala Val 50 55 60

Leu Ser Pro Gly Phe His Ser Ala 65 70

<210> 611 <211> 41 <212> PRT

<213> Homo sapiens

<400> 611

Met Ile Asn Phe Trp Pro Val Thr His Vd Cys Ile Trp Leu Leu Trp 1 5 10 15

Leu Gln Ala Leu Glu Ala Arg Gly Gln Gly Ser Asn Ile Asp Cys Thr 20 25 30

Arg Asn Ser Lys Thr Val Phe Thr Ser 35 40

<210> 612

<211> 201

<212> PRT

<213> Homo sapiens

<400> 612

Met Thr Leu Arg Pro Ser Leu Leu Pro Leu His Leu Leu Leu Leu 1 5 10 15

Leu Leu Ser Ala Ala Val Cys Arg Ala Glu Ala Gly Leu Glu Thr Glu
20 25 30

Ser Pro Val Arg Thr Leu Gln Val Glu Thr Leu Val Glu Pro Pro Glu
35 40 45

Pro Cys Ala Glu Pro Ala Ala Phe Gly AspThr Leu His Ile His Tyr 50 55 60

Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg 65 70 75 80

Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln ValIle Pro Gly Leu 85 90 95

Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile 100 105 110

Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe ProPro Ser Val 115 120 125

Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile 130 135 140

Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val 145 150 155 160

Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu 165 170 175

Tyr Arg Lys Ala Asn Arg Pro Lys Val Ser Lys Lys Lys Leu Lys Glu 180 185 190 Glu Lys Arg Asn Lys Ser Lys Lys Lys 195 200

<210> 613

<211> 41

<212> PRT

<213> Homo sapiens

<400> 613

Met Pro Pro Lys Gln Ile Pro Leu Thr Ser Leu Ser Leu Leu Aa Leu 1 5 10 15

Leu Leu Phe Phe Phe Lys Ile Phe Cys Leu Leu Phe Leu Phe Tyr 20 25 30

Pro Leu Pro Asp Glu Ser Glu His Phe 35 40

<210> 614

<211> 139

<212> PRT

<213> Homo sapiens

<400> 614

Met Glu Ala Val Val Phe Val Phe Ser Leu Leu Asp Cys Cys Ala Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Ile Phe Leu Ser Val Tyr Phe Ile Ile Thr Leu S∉ Asp Leu Glu Cys
20 25 30

Asp Tyr Ile Asn Ala Arg Ser Cys Cys Ser Lys Leu Asn Lys Trp Val 35 40 45

Ile Pro Glu Leu Ile Gly His Thr Ile Val Thr Val Leu Leu Le Met 50 55 60

Ser Leu His Trp Phe Ile Phe Leu Leu Asn Leu Pro Val Ala Thr Trp 65 70 75 80

Asn Ile Tyr Arg Tyr Ile Met Val Pro Ser Gly Asn Met Gly Val Phe 85 90 95

Asp Pro Thr Glu Ile His Asn Arg Gly Gln Leu Lys Ser His Met Lys
100 105 110

Glu Ala Met Ile Lys Leu Gly Phe His Leu Leu Cys Phe Phe Met Tyr 115 120 125

Leu Tyr Ser Met Ile Leu Ala Leu Ile Asn Asp 130 135

```
<210> 615
```

<211> 147

<212> PRT

<213> Homo sapiens

<400> 615

Met Leu Gly Leu Pro Trp Lys Gly Gly Leu Ser Trp Ala Leu LeuLeu 1 5 10 15

Leu Leu Gly Ser Gln Ile Leu Leu Ile Tyr Ala Trp His Phe His 20 25 30

Glu Gln Arg Asp Cys Asp Glu His Asn Val Met Ala Arg Tyr Leu Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ala Thr Val Glu Phe Ala Val His Thr Phe Asn Gln Gln Ser Lys Asp 50 55 60

Tyr Tyr Ala Tyr Arg Leu Gly His Ile Leu Asn Ser Trp Lys Glu Gln 65 70 75 80

Val Glu Ser Lys Thr Val Phe Ser Met Glu Leu Leu Leu Gly Arg Thr 85 90 95

Arg Cys Gly Lys Phe Glu Asp Asp Ile Asp Asn Cys His Phe Glu 100 105 110

Ser Thr Glu Leu Asn Asn Thr Phe Thr Cys Phe Phe Thr Ile Ser Thr 115 \$120\$

Arg Pro Trp Met Thr Gln Phe Ser Leu Leu Asn Lys Thr Cys Leu Glu 130 135 140

Gly Phe His

145

<210> 616

<211> 111

<212> PRT

<213> Homo sapiens

<400> 616

Met Lys Ser Leu Leu Phe Thr Leu Ala Val Phe Met Leu Leu Ala Gln  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Val Ser Gly Asn Trp Tyr Val Lys Lys Cys Leu Asn Asp Val Gly 20 25 30

Ile Cys Lys Lys Cys Lys Pro Glu Glu Met His Val Lys Asn Gly
35 40 45

Trp Ala Met Cys Gly Lys Gln Arg Asp Cys Cys Val Pro Ala Asp Arg
50 55

Arg Ala Asn Tyr Pro Val Phe Cys Val Gln Thr Lys Thr Thr Arg Ile

65 70 75 80

Ser Thr Val Thr Ala Thr Thr Ala Thr Thr Leu Met Met Thr Thr 85 90 95

Ala Ser Met Ser Ser Met Ala Pro Thr Pro Val Ser Pro Thr Gly 100 105 110

<210> 617

<211> 79

<212> PRT

<213> Homo sapiens

<400> 617

Met Leu Arg Leu Thr Gln Thr Phe Phe Phe Ile Ser Gln Thr Leu Leu 1 5 10 15

Asp Trp Phe Leu Ala Ala Ala Leu Ala Leu Pro Asn Leu Cys Ser Pro
20 25 30

Leu Ala Ser Asn Phe Lys Ser Arg Gln Ile Ser Ser Val Pro Ile Gln
35 40 45

Pro Ser Gln Gly Thr Ser Arg Val Ala Leu Gln Ile Trp Cys Gly Ser 50 60

Cys Arg Met Arg Met Ser Ser Ser Thr Ile His Ile Leu Ala Leu 65 70 75

<210> 618

<211> 47

<212> PRT

<213> Homo sapiens

<400> 618

Met Leu Ile Ser Val Asp Ser Asn Val Pro Val Val Phe Leu Leu Leu 1 5 10 15

Phe Ile Leu Val Ile Leu Cys His Met Glu Cys Lys Gly His Ile Tyr 20 25 30

Ile Cys Val Cys Val Cys Val Tyr Met Tyr Ile Phe Lys Asn Ile 35 40 45

<210> 619

<211> 123

<212> PRT

<213> Homo sapiens

<400> 619

Met Lys Leu Leu Leu Ala Leu Pro Met Leu Val Leu Leu Pro Gln

. 5 10 15

Val Ile Pro Ala Tyr Ser Gly Glu Lys Lys Cys Trp Asn Arg Ser Gly
20 25 30

- His Cys Arg Lys Gln Cys Lys Asp Gly Glu Ala Val Lys Asp Thr Cys
  35 40 45
- Lys Asn Leu Arg Ala Cys Cys  $\mathbb{I}$ e Pro Ser Asn Glu Asp His Arg Arg 50 55 60
- Val Pro Ala Thr Ser Pro Thr Pro Leu Ser Asp Ser Thr Pro Gly Ile 65 70 75 80
- Ile Asp Asp Ile Leu Thr Val Arg Phe  $\mbox{Thr}$  Thr Asp Tyr Phe Glu Val 85  $\mbox{90}$  95
- Ser Ser Lys Lys Asp Met Val Glu Glu Ser Glu Ala Gly Arg Gly Thr 100 105 110
- Glu Thr Ser Leu Pro Asn Val His His Ser &r 115 120

<210> 620

<211> 121

<212> PRT

<213> Homo sapiens

<400> 620

- Met His Arg Ser Glu Pro Phe Leu Lys Met Ser Leu Leu Ile Leu Leu 1 5 10 15
- Phe Leu Gly Leu Ala Glu Ala Cys Thr Pro Arg Glu Val Asn Leu Leu 20 25 30
- Lys Gly Ile Ile Gly Leu Met Ser Arg Leu Ser Pro Asp Glu Ile Leu 35 40 45
- Gly Leu Leu Ser Leu Gln Val Leu His Glu Glu Thr Ser Gly Cys Lys 50 55 60
- Glu Glu Val Lys Pro Phe Ser Gly Thr Thr Pro Ser Arg Lys Pro Leu 65 70 75 80
- Pro Lys Arg Lys Asn Thr Trp Asn Phe Le Lys Cys Ala Tyr Met Val 85 90 95
- Met Thr Tyr Leu Phe Val Ser Tyr Asn Lys Gly Asp Trp Phe Thr Phe 100 105 110
- Ser Ser Gln Val Leu Leu Pro Leu Leu 115 120

```
<210> 621
```

<211> 87

<212> PRT

<213> Homo sapiens

<400> 621

Met Thr Ala Trp Ile Leu Leu Pro Val Ser Leu Ser Ala Phe Ser Ile 1 5 10 15

Thr Gly Ile Trp Thr Val Tyr Ala Met Ala Val Met Asn His His Val 20 25 30

Cys Pro Val Glu Asn Trp Ser Tyr Asn Glu Ser Cys Pro Pro Asp Pro
35 40 45

Ala Glu Gln Gly Gly Pro Lys Thr Cys CysThr Leu Asp Asp Val Pro 50 55 60

Leu Ile Ser Gly Pro Asp Leu Pro Pro Ala Leu Arg Ala Ala Pro Gly 65 70 75 80

Ala Glu Ser Ala Leu Leu Gly
85

<210> 622

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 622

Met Pro Gly Gly Thr Arg Cys Arg Val Leu Leu Leu Ser Leu Thr Phe  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Gly Thr Ser Met Ala Cys Gly Asn Val Gly Leu Arg Leu Cys Pro Trp 20 25 30

Thr Trp His Asn Trp Leu Leu Pro Pro His Leu Cys Ser Xaa Trp Pro 35 40 45

Cys Arg Arg Cys Cys Trp Ala Ala Ala Thr Thr His Phe Ser Trp Pro 50 60

Pro Trp Val Arg Ser Ala Trp Gly Pro Pro Ala Ala Trp Leu Glu Ser 65 70 75 80

Ser Gly His Pro Leu Pro Ala Val Ala Ser Cys Ser Gln Pro Pro Ala 85 90 95

Ser Ala Asp Ser Ser Arg Phe Ser Lys Val Pro Cys Cys Arg Arg 100 105 110

Gly Trp Thr Arg 115

<210> 623

<211> 86

<212> PRT

<213> Homo sapiens

<400> 623

Met Pro Trp His Val Cys Phe Phe Leu Ser Gly Leu Leu Phe Pro Ser 1 5 10 15

Pro Gln Thr Ser Leu Gln His Leu Cys Leu Leu Thr Ser Leu Ile Leu 20 25 30

Gly Val Thr Ile Ser Ala Tyr Glu His Ala Ile Asn Leu Pro Ser Leu  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gln Asn Ser Leu Leu Thr Ser His Pro Ser Val Ala Ala Leu Ser Leu 50 55 . 60

Leu Ser Ser Ser Leu Gln Gln Asn Ser Leu Lys Glu Leu Leu Ala Gly 65 70 75 80

His Ser Gly Ser Leu Leu 85

<210> 624

<211> 61

<212> PRT

<213> Homo sapiens

<400> 624

Met Phe Cys Trp Ile Leu Val Cys Leu Ala Tyr Leu Lys Val Pro Leu 1 5 10 15

Leu Phe Phe Phe Phe Phe Leu Ser Ala Leu Phe Cys Arg Thr Cys 20 25 30

Ser Asn Met Glu Asn Lys Ser Arg Arg Leu Ser Ser Asp Cys Tyr Leu 35 40 45

Cys Pro Lys Pro Pro Gln Thr Phe Met Leu Met Phe  $\mbox{\em yr}$  50 55 60

<210> 625

<211> 352

<212> PRT

<213> Homo sapiens

- Met Leu Cys Arg Leu Cys Trp Leu Val Ser Tyr Ser Leu Ala Val Leu
- Leu Leu Gly Cys Leu Leu Phe Leu Arg Lys Ala Ala Lys Pro Ala Glu
- Thr Pro Arg Pro Thr Ser Leu Ser Gly Ala Pro Pro Thr Pro Arg His 40
- Ser Arg Cys Pro Pro Asn His Thr Val Ser Ser Ala Ser Leu Ser Leu
- Pro Ser Arg His Arg Leu Phe Leu Thr Tyr Arg His Cys Arg Asn Phe
- Ser Ile Leu Leu Glu Pro Ser Gly Cys Ser Lys Asp Thr Phe Leu Leu
- Leu Ala Ile Lys Ser Gln Pro Gly His Val Glu Arg Arg Ala Ala Ile
- Arg Ser Thr Trp Gly Arg Trp Gly Asp Gly Leu Gly Pro Ala Leu Lys
- Leu Val Phe Leu Leu Gly Val Ala Gly Ser Ala Pro Pro Ala Gln Leu
- Leu Ala Tyr Glu Ser Arg Glu Phe Asp Asp Ile Le Gln Trp Asp Phe 150
- Thr Glu Asp Phe Phe Asn Leu Thr Leu Lys Glu Leu His Leu Gln Arg 165
- Trp Val Val Ala Ala Cys Pro Gln Ala His Ple Met Leu Lys Gly Asp 185
- Asp Asp Val Phe Val His Val Pro Asn Val Leu Glu Phe Leu Asp Gly
- Trp Asp Pro Ala Gln Asp Leu Leu Val Gly Asp Val Ile Ag Gln Ala 215
- Leu Pro Asn Arg Asn Thr Lys Val Lys Tyr Phe Ile Pro Pro Ser Met 235
- Tyr Arg Ala Thr His Tyr Pro Pro Tyr Ala Gly Gly Gly Tyr Vh
- Met Ser Arg Ala Thr Val Arg Arg Leu Gln Ala Ile Met Glu Asp Ala 265
- Glu Leu Phe Pro Ile Asp Asp Val Phe Val Gly Met Cys Leu Arg Arg 275
- Leu Gly Leu Ser Pro Met His His Ala Gly Phe Lys Thr Phe Gly Ile 295 300

Arg Arg Pro Leu Asp Pro Leu Asp Pro Cys Leu Tyr Arg Gly Leu Leu 305 310 315

Leu Val His Arg Leu Ser Pro Leu Glu Met Trp Thr Met Trp Ala Leu 325 330 335

Val Thr Asp Glu Gly Leu Lys Cys Ala Ala Gly Pro Ile Pro Gln Arg 340 345 350

<210> 626

<211> 10

<212> PRT

<213> Homo sapiens

<400> 626

Gly Leu Leu Tyr Ile Met Tyr Cys Asn Ile 1 5 10

<210> 627

<211> 45

<212> PRT

<213> Homo sapiens

<400> 627

Met Val Lys Trp Ile Ile Leu Ser Cys Leu Ile Leu Lys Gly Lys Arg 1 5 10 15

Thr Leu Asn Ser Ser Thr Phe Tyr Ala Ala Asn Lys Ser Ser Thr Ile 20 25 30

Asn Arg Asn Leu Ser Trp Gln Ala Leu Pro Phe Thr His 35 40 45

<210> 628

<211> 56

<212> PRT

<213> Homo sapiens

<400> 628

Met Arg Ser Tyr Phe Pro Phe Ser Val Cys Pro Phe Pro Phe Cys Ser  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Pro Val Phe Phe Phe Val Phe Thr Asp Val Tyr Leu Cys Phe Phe 20 25 30

Val Phe Ala Val Gly Arg His Leu Ser Asp Pro Phe Pro Ile Leu Phe 35 40 45

Phe Thr His Lys Cys Pro Asp Val <210> 629 <211> 38 <212> PRT <213> Homo sapiens <400> 629 Met Leu Lys Leu Ala Thr Ile Leu Leu Thr Leu Leu Lys Asn Leu Asp Ala Gly Leu Thr Asp Lys Leu Ser Arg Ser Asn Phe Ile Thr Asp 25 20 Phe Ile Leu Thr Lys Tyr 35 <210> 630 <211> 44 <212> PRT <213> Homo sapiens <400> 630 Met Pro Cys His Gly Leu Leu Ala Gln Gly Leu Ser Leu Ala Pro Leu Pro Pro Trp Ala Leu Cys Cys Val Gly Val Ser Arg Ala Leu Gln Asp 20 25 Ile Gln Gln His Pro Arg Pro Pro Ala Pro Cys Gln 40 <210> 631 <211> 34 <212> PRT <213> Homo sapiens <400> 631 Met Gln Ala Arg Trp Phe His Ile Leu Gly Met Met Phe Ile Trp

Ser Ser Ala His Gln Tyr Lys Cys Pro Cys Tyr Ser Arg Gln Ser Gln

Glu Lys

448

```
<210> 632
```

<211> 68

<212> PRT

<213> Homo sapiens

<400> 632

Met Val His Asn Cys Leu Leu Leu Lys Phe Leu Leu Leu Phe Cys
1 10 15

Phe Pro Leu Ile Ser Tyr Gln Leu Met Asn Gly Ser Leu Gln Ser Leu 20 25 30

Gln Arg Leu Arg Met Ile Gln Asn Val Gln Cys Ile Val Leu Asn Lys  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Gln Glu Ala Glu Phe Leu Met Gly Ile Ser Phe Gln Ile Tyr Asp Trp 50 55 60

Ser Leu Gly Phe

<210> 633

<211> 194

<212> PRT

<213> Homo sapiens

<400> 633

Met Lys Leu Ala Ser Gly Phe Leu Val Leu Trp Leu Ser Leu Gly Gly
1 5 10 15

Gly Leu Ala Gln Ser Asp Thr Ser Pro Asp Thr Glu GluSer Tyr Ser 20 25 30

Asp Trp Gly Leu Arg His Leu Arg Gly Ser Phe Glu Ser Val Asn Ser 35 40 45

Tyr Phe Asp Ser Phe Leu Glu Leu Leu Gly Gly Lys Asn Gly Val Cys 50 55 60

Gln Tyr Arg Cys Arg Tyr Gly Lys Ala Pro Met Pro Arg Pro Gly Tyr
65 70 75 80

Lys Pro Gln Glu Pro Asn Gly Cys Gly Ser Tyr Phe Leu Gly Leu Lys 85 90 95

Val Pro Glu Ser Met Asp Leu Gly Ile Pro Ala Met Thr Lys Cys Cys 100 105 110

Asn Gln Leu Asp Val Cys Tyr Asp Thr Cys Gly Ala Asn Lys Tyr Arg 115 120 125

Cys Asp Ala Lys Phe Arg Trp Cys Leu His Ser Ile Cys Ser Asp Leu 130 135 140

Lys Arg Ser Leu Gly Phe Val Ser Lys Val Glu Ala Cys Asp Ser Leu

145 150 155 160

Val Asp Thr Val Phe Asn Thr Val Trp Thr Leu Gly Cys Arg Pro Phe 165 170 175

Met Asn Ser Gln Arg Ala Ala Cys Ile Cys Ala Glu Glu Glu Lys Glu 180 185 190

Glu Leu

<210> 634

<211> 79

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring bamino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring I-amino acids

<400> 634

Met Gly Cys Cys Ser Lys Lys Tyr Trp Gln Leu Leu Gly Ala Ala 1 5 10 15

Pro Trp Gly Val Ile Pro Xaa Leu Leu Trp Met Gly Thr Arg Ala 20 25 30

Pro His Phe Lys Asp Ser Val Ser Gln Gly Leu Pro Xaa Lys Ala Glu 35 40 45

Glu Ser Arg Ala Asn Phe Asn Gln Phe Leu Val Leu Met Pro Lys
50 55 60

Glu Met Ile Val Leu Thr Ile Val His Pro Ile Val Arg Arg Ala 65 70 75

<210> 635

<211> 162

<212> PRT

<213> Homo sapiens

<400> 635

Met Thr Ser Asn Phe Pro Phe Cys Thr Leu Ile Leu Gy Ile Ala Gln 1 5 10 15

Ala Gln Ala Cys Pro Gly Cys Pro Gly Asp Trp Pro Gly Leu Gly Ser 20 25 30

Gly Val Gly Glu Gly Leu His His Ile Arg Thr Cys Arg  $\overline{\text{M}}$ r Pro Ile 35 40 45

Pro Cys Ser Pro Pro Ala Pro Ala Ala Cys Leu Gly Ser Gly His 50 60

Ala Arg Leu Pro Cys Val Leu Arg Leu Trp Pro Val Pro Ala Asn Leu 65 70 75 80

Ser Ser Pro Phe Arg Leu Glu Ala Leu His Cys Ser Phe Trp Ser Ser 85 90 95

Pro Leu Leu Pro Ala Pro His Leu Ala Phe Phe Gly Phe Arg Asp Leu 100 105 110

Leu Thr Asp Phe Leu Leu Ala Ala Cys Leu Leu Thr Phe Gln Lys Thr 115 120 125

Pro Leu Glu Leu Pro Met Ala Val Val His Leu Leu Val Ala Thr Pro 130 135 140

Cys Tyr Gln Met Leu Asp Asn Leu Pro Leu Pro Ser Ala Ala Ala Asn 145 150 155 160

Trp Cys

<210> 636

<211> 53

<212> PRT

<213> Homo sapiens

<400> 636

Met Ile Leu Leu Ile Ser Gln Cys Pro Leu Ser Ile Phe Ala Ala Pro 1 5 10 15

Phe Ala Leu Pro Pro Lys Gly His Cys Gly Ser Phe Ser Asp Phe His 20 25 30

Ser Gln Val Thr Leu His Lys Asn Ser Lys Leu Ile Phe Arg Ser His 35 40 45

Lys Ser Ile Leu Leu 50

<210> 637

<211> 47

<212> PRT

<213> Homo sapiens

<400> 637

Met Leu Leu Phe Ser Ser Arg Phe Ile Met PheLeu Trp Pro Pro Val

1 5 10 15

Ser Gly Val Cys Leu Ser Phe Ile Arg Asp Arg Ser Phe Leu Pro Met 20 25 30

Cys His Phe Ile Tyr Val Leu Ile Leu Cys Asn SerIle Ala Leu  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$ 

<210> 638

<211> 41

<212> PRT

<213> Homo sapiens

<400> 638

Met Ser Tyr Lys Trp Asn Ser Arg Val Cys Phe Leu Trp Ser Arg Thr  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Phe His Leu Met Leu Arg Leu Ile Cys Leu Val Ala Tyr Ile Ser 20 25 30

Thr Glu Val Ile Ser Phe Ile Ala Glu
35 40

<210> 639

<211> 79

<212> PRT

<213> Homo sapiens

<400> 639

Met Thr Leu Met Cys Leu Cys Leu Ser Val Thr Val Leu His Pro Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Arg Ser Lys Glu Arg Leu Ser Gly Thr Phe Cys Gly Tyr Ser Ser Ser 20 25 30

Trp Cys Ser Pro Ala Ser Glu Ser Ser Ser Pro Gly Ser Leu Leu Thr 35 40 45

Cys Ala Ala Ser Gly Ser His Pro Asp Cys Pro Leu Ser Gln Arg Leu
50 55 60

Leu Gly Val Gln Leu Ala Ala Leu Gly Arg Pro Gln Gly Leu Phe 65 70 75

<210> 640

<211> 292

<212> PRT

<213> Homo sapiens

<400> 640

Met Leu Arg Val Leu Cys Leu Leu Arg Pro Trp Arg Pro Leu Arg Ala

Arg Gly Cys Ala Ser Asp Gly Ala Ala Gly Gly Ser Glu Ile Gln Val 20 25 30

Arg Ala Leu Ala Gly Pro Asp Gln Gly Ile Thr Glu Ile Leu Met Asn  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Arg Pro Ser Ala Arg Asn Ala Leu Gly Asn Val Phe Val Ser Glu Leu 50 60

Leu Glu Thr Leu Ala Gln Leu Arg Glu Asp Arg Gln Val Arg Val Leu 65 70 75 80

Leu Phe Arg Ser Gly Val Lys Gly Val Phe Cys Ala Gly Ala Asp Leu 85 90 95

Lys Glu Arg Glu Gln Met Ser Glu Ala Glu Val Gly Val Phe Val Gln 100 105 110

Arg Leu Arg Gly Leu Met Asn Asp Ile Ala Ala Phe Pro Ala Pro Thr 115 120 125

Ile Ala Ala Met Asp Gly Phe Ala Leu Gly Gly Gly Leu Glu Leu Ala 130 135 140

Leu Ala Cys Asp Leu Arg Val Ala Ala Ser Ser Ala Val Met Gly Leu 145 150 155 160

Ile Glu Thr Thr Arg Gly Leu Leu Pro Gly Ala Gly Gly Thr Gln Arg 165 170 175

Leu Pro Arg Cys Leu Gly Val Ala Leu Ala Lys Glu Leu Ile Phe Thr 180 185 190

Gly Arg Arg Leu Ser Gly Thr Glu Ala His Val Leu Gly Leu Val Asn 195 200 205

His Ala Val Ala Gln Asn Glu Glu Gly Asp Ala Ala Tyr Gln Arg Ala 210 215 220

Arg Ala Leu Ala Gln Glu Ile Leu Pro Gln Ala Pro Ile Ala Val Arg 225 230 235 240

Leu Gly Lys Val Ala Ile Asp Arg Gly Thr Glu Val Asp Ile Ala Ser 245 250 255

Gly Met Ala Ile Glu Gly Met Cys Tyr Ala Gln Asn Ile Pro Thr Arg 260 265 270

Asp Arg Leu Glu Gly Met Ala Ala Phe Arg Glu Lys Arg Thr Pro Lys 275 280 285

Phe Val Gly Lys 290

```
<210> 641
<211> 377
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (164)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (213)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 641
Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Phe Ser
Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile
Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr
Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr Ser Leu Pro Phe Cys
Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu
Arg Gly Asp Arg Ile Val Asn Thr Pro Phe Gln Val Leu Met Asn Ser
                                      90
Glu Lys Lys Cys Glu Val Leu Cys Ser Gln Ser Asn Lys Pro Val Thr
                                105
Leu Thr Val Glu Gln Ser Arg Leu Val Ala Glu Arg Ile Thr Glu Asp
        115
Tyr Tyr Val His Leu Ile Ala Asp Asn Leu Pro Val Ala Thr Arg Leu
                        135
Glu Leu Tyr Ser Asn Arg Asp Ser Asp Asp Lys Lys Glu Ser Asp
                                                             160
Ile Lys Trp Xaa Ser Arg Trp Asp Thr Tyr Leu Thr Met Ser Asp Val
                                     170
Gln Ile His Trp Phe Ser Ile Ile Asn Ser Val Val Val Phe Phe
             180
                                 185
Leu Ser Gly Ile Leu Ser Met Ile Ile Ile Arg Thr Leu Arg Lys Asp
```

200

Ile Ala Asn Tyr Xaa Lys Glu Asp Asp IleGlu Asp Thr Met Glu Glu

| 210 | 215 | 220 |
|-----|-----|-----|
|     |     |     |

Ser Gly Trp Lys Leu Val His Gly Asp Val Phe Arg Pro Pro Pro Val 225 230 235 240

Pro His Asp Pro Gln Leu Pro Ala Gly Leu Arg HisSer Ala Val Leu 245 250 255

Tyr Asp Pro His Arg His Leu Cys Ser His Ala Trp Asp Ala Val Ala 260 265 270

Leu Gln Pro Gly Ser Ser His Asp His Ser Leu Leu ProLeu His Val 275 280 285

His Gly Gly Val Trp Arg Ile Phe Cys Trp Pro Ser Val Pro His Phe 290 295 300

Lys Arg Pro Ser Val Glu Glu Arg Ser Leu Leu Tyr Gly Asn Ser Val 305 310 315

Pro Trp Cys Gly Phe Trp His Leu Leu Arg Ile Glu Leu Leu His Leu 325 330 335

Gly Lys Ala Leu Ile Arg Ser Gly Ala Leu Ser His His Gly Gly Ser 340 345 350

Ala Val His Val Val Arg Asp Leu Pro Ala Pro Arg Leu Leu Gly Leu 355 360 365

Leu Leu Arg Leu Pro Lys Ala Ala Ile 370 375

<210> 642

<211> 121

<212> PRT

<213> Homo sapiens

<400> 642

Met Ile Met Ala Gln Lys Ile Gly Gly Leu Thr Trp Trp Ala Ile Met 1 5 10 15

Phe Ile Ile Leu Phe Glu Ile Thr Gly Thr Ser Ser Phe Leu Arg
20 25 30

Ile Asn Ala Leu Pro His Phe Ser Met Asn Arg Cys Gly Glu Ala Tyr 35 40 45

Phe Pro Phe Ser Tyr Leu Tyr Thr Ser Leu Gln Lys Gln Phe Leu Met 50 55 60

Lys Val Ser Gly Ile Val Lys Asn Leu Arg Gly Asn Asp Asp Trp Arg 65 70 75 80

Cys Phe Gly Val Phe Phe Cys Ile His Phe Leu Met Arg Lys Val Leu 85 90 95

```
Asn Val Val Gln Val Arg Pro Asn Tyr Tyr Leu Thr Ile Ile Gly Arg 100 105 110
```

Phe Tyr Val Ser Val Lys Val Phe Lys 115 120

<210> 643

<211> 26

<212> PRT

<213> Homo sapiens

<400> 643

Met Phe His Ser Ser Leu Leu Val Phe Leu Ser Leu Leu Ser Gln Glu
1 10 15

Ile Phe Thr Glu Tyr Asp Cys Met His Lys

<210> 644

<211> 76

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 644

Met Asn Arg Gly Gln Arg Leu Cys Leu Ala Phe Val Ser Leu Phe Pro  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Pro Cys Asn Ser Leu Xaa Pro Pro Pro Thr Leu Phe Pro Ser Pro Leu 20 25 30

Leu Pro Leu Ser Leu Thr Ser Pro Thr Pro His Ser Leu Ser Ser Leu 35 40 45

Ala Val Ser Cys Val Cys Val Gly Val Cys Val Phe Gly Cys Val Asn 50 55 60

Val Gly Ser Ser Thr Thr Gly Phe Cys Asn Leu Gly 65 70 75

<210> 645

<211> 50

<212> PRT

<213> Homo sapiens

<400> 645

Met Tyr Ile Tyr Leu Ile His Leu Cys Met Cys Val Tyr Ile Tyr Ile 1 5 10 15

Tyr Ile Leu Leu Ile Ile Tyr Thr Leu Asp Pro Glu Pro Pro Ser Trp
20 25 30

Ser Pro Lys Leu Asp Ser His Leu Ser Leu Arg Gln Pro Ser Asn Asp 35 40 45

Arg Phe 50

<210> 646

<211> 82

<212> PRT

<213> Homo sapiens

<400> 646

Leu Gly Trp Ala Leu Pro Cys Cys Met Asn Ser Leu Arg Lys Gly Arg 20 25 30

Lys Phe Ser Gln Ile Thr Thr Ser Leu Met Ala Ser Val Ser Ser Ala 35 40 45

Ser Met Val Ser Arg Arg Arg Pro Leu Pro Lys His Pro Val Thr 50 55 60

Thr Thr Ser Thr Ala Thr Ala Leu Leu Gly Thr Ser Ser Thr Trp Ser 65 70 75 80

Lys Ser

<210> 647

<211> 64

<212> PRT <213> Homo sapiens

<400> 647

Met Phe Met Trp Thr Ile Ser Ile Val Thr Phe Ser Ile Pro Leu Th
1 5 10 15

Leu Pro Leu Pro Leu Arg Gly Glu Asn Lys Thr Leu Asn Gly Ser Asn 20 25 30

Ser Tyr Val Phe Tyr Phe Val Ser Glu Val Ser Lys Leu Leu Leu 35 40 45

Ala Ser Phe Ser Leu Gly Gln Met Asp Val Ser Tyr Phe Pro Val Ser 50 60

<210> 648 <211> 390

<212> PRT

<213> Homo sapiens

<400> 648

Met Ile Ser Leu Pro Gly Pro Leu Val Thr Asn Leu Leu Arg Phe Leu 1 5 10 15

Phe Leu Gly Leu Ser Ala Leu Ala Pro Pro Ser Arg Ala Gln Leu Gln 20 25 30

Leu His Leu Pro Ala Asn Arg Leu Gln Ala Val Glu Gly Glu Val
35 40 45

Val Leu Pro Ala Trp Tyr Thr Leu His Gly Glu Val Ser Ser Gln
50 60

Pro Trp Glu Val Pro Phe Val Met Trp Phe Phe Lys Gln Lys Glu Lys 65 70 75 80

Glu Asp Gln Val Leu Ser Tyr Ile Asn Gly Val Thr Thr Ser Lys Pro 85 90 95

Gly Val Ser Leu Val Tyr Ser Met Pro Ser Arg Asn Leu Ser Leu Arg 100 105 110

Leu Glu Gly Leu Gln Glu Lys Asp Ser Gly Pro Tyr Ser Cys Ser Val 115 120 125

Asn Val Gln Asp Lys Gln Gly Lys Ser Arg Gly His Ser Ile Lys Thr 130 135 140

Leu Glu Leu Asn Val Leu Val Pro Pro Ala Pro Pro Ser Cys Arg Leu 145 150 155 160

Gln Gly Val Pro His Val Gly Ala Asn Val Thr Leu S∉ Cys Gln Ser 165 170 175

Pro Arg Ser Lys Pro Ala Val Gln Tyr Gln Trp Asp Arg Gln Leu Pro 180 185 190

Ser Phe Gln Thr Phe Phe Ala Pro Ala Leu Asp Val Ile Ag Gly Ser 195 200 205

Leu Ser Leu Thr Asn Leu Ser Ser Ser Met Ala Gly Val Tyr Val Cys 210 215 220

Lys Ala His Asn Glu Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu 225 230 235 240

```
Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val Gly 245 250 255

Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu Tyr His
```

Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn Asp Ile Lys Glu Asp

Ala Ile Ala Pro Arg Thr Leu Pro Trp Pro Lys Ser Ser Asp Thr Ile

280

Ser Lys Asn Gly Thr Leu Ser Ser Val Thr Ser Ala Arg Ala Leu Arg 305 310 315 320

Pro Pro His Gly Pro Pro Arg Pro Gly Ala Leu Thr Pro Thr Pro Ser 325 330 335

Leu Ser Ser Gln Ala Leu Pro Ser Pro Arg Leu Pro Thr Thr Asp Gly 340 345 350

Ala His Pro Gln Pro Ile Ser Pro Ile Pro Gly Gly Val Ser Ser Ser 355 360 365

Gly Leu Ser Arg Met Gly Ala Val Pro Val Met Val Pro Ala Gln Ser 370 375 380

Gln Ala Gly Ser Leu Val 385 390

<210> 649 <211> 44 <212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 649

Met Val Leu His Cys Ile Ala Trp Leu Gln Xaa Gly Ile SerPhe Leu 1 5 10 15

Phe Leu Phe Leu Cys Val Ile Ala Ile Gly Ala Thr Asn Phe Ala Ser 20 25 30

Pro Xaa Phe Tyr Lys Leu Val Ser Ser Gly Val Ala

```
<210> 650
<211> 89
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 650
Met Ser Gly Gly Leu Ser Phe Leu Leu Leu Val Xaa Xaa Gly Thr Gln
Ser Pro Leu His Leu Ala Gly Ser Cys Pro Gly Gln Thr His Leu Ser
Phe Pro Leu Gly Gln Asp Arg Gly Gln Gln Leu Gln Gln Lys Gln Gln
Asp Leu Glu Glu Gly Leu Glu Ala Thr Gln Gly Leu Leu Ala Gly
     50
                                              60
Glu Trp Ala Pro Pro Leu Trp Xaa Leu Gly Ser Leu Phe Gln Ala Phe
Val Lys Arg Glu Ser Gln Ala Tyr Ala
                 85
<210> 651
<211> 52
<212> PRT
<213> Homo sapiens
<400> 651
Met Leu Tyr Asp Ser Asn Leu Cys Ser Val Trp His Leu Tyr Leu Ile
Leu His Leu Cys Lys Thr Phe Val Tyr Cys Gly Cys Val His Ser Ser
Tyr Leu Ile Ser Gly Thr Val Asn Thr Gln Tyr Phe Ile Val Gln Thr
```

```
Val Leu Leu Phe
50
<210> 652
<211> 66
```

<212> PRT

<213> Homo sapiens <400> 652

Met Leu Leu Ile Ser Ala Val Gln Val Phe Ile Leu Leu Ser Pro Ser 1 5 10 15

Phe Tyr Leu Ile Leu Tyr Leu Leu Arg Pro Gly Gly Thr Gly Arg Gy 20 25 30

Leu Glu Pro Ile Cys Pro Ala Ala Glu Trp Gly Gly Trp Arg Asp Gly
35 40 45

Tyr Leu Trp Leu Gln Tyr Gln Glu Pro Thr Val Ser Leu Asp Asn Trp 50 55 60

Gly Asn 65

<210> 653 <211> 508 <212> PRT <213> Homo sapiens

<400> 653
Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val Leu
1 5 10 15

Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro Pro 20 25 30

Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His Gln Asp 35 40 45

Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu Ser Asp Ser 50 55 60

Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe Arg Met Met Ala 65 70 75 80

Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala Arg Val Ala Ser Val 85 90 95

Asp Met Gly Pro Gln Gln Leu Pro Asp Gly Gln Ser Leu Pro Ile Pro 100 105 110

Pro Val Ile Leu Ala Glu Leu Gly Ser Asp Pro Thr Lys Gly Thr Val

|     |            | 115 |     |     |     |            | 120 |     |     |     |            | 125 |
|-----|------------|-----|-----|-----|-----|------------|-----|-----|-----|-----|------------|-----|
| Cys | Phe<br>130 | Tyr | Gly | His | Leu | Asp<br>135 | Val | Gln | Pro | Ala | Asp<br>140 | Arg |

Trp Leu Thr Asp Pro Tyr Val Leu Thr Glu ValAsp Gly Lys Leu Tyr 145 150 155 160

Gly Asp Gly

- Gly Arg Gly Ala Thr Asp Asn Lys Gly Pro Val Leu Ala Trp Ile Asn 165 170 175
- Ala Val Ser Ala Phe Arg Ala Leu Glu GlnAsp Leu Pro Val Asn Ile 180 185 190
- Lys Phe Ile Ile Glu Gly Met Glu Glu Ala Gly Ser Val Ala Leu Glu 195 200 205
- Glu Leu Val Glu Lys Glu Lys Asp Arg Phe Phe Ser GlyVal Asp Tyr 210 215 220
- Ile Val Ile Ser Asp Asn Leu Trp Ile Ser Gln Arg Lys Pro Ala Ile 225 230 235 240
- Thr Tyr Gly Thr Arg Gly Asn Ser Tyr Phe Met Val Glu Val LysCys 245 250 255
- Arg Asp Gln Asp Phe His Ser Gly Thr Phe Gly Gly Ile Leu His Glu 260 265 270
- Pro Met Ala Asp Leu Val Ala Leu Leu Gly Ser Leu Val Asp Ser Ser 275 280 285
- Gly His Ile Leu Val Pro Gly Ile Tyr Asp Glu Val Val Pro Leu Thr 290 295 300
- Glu Glu Glu Ile Asn Thr Tyr Lys Ala Ile His Leu Asp Leu Glu Glu 305 310 315 320
- Tyr Arg Asn Ser Ser Arg Val Glu Lys Phe Leu Phe Asp Thr Lys Glu 325 330 335
- Glu Ile Leu Met His Leu Trp Arg Tyr Pro Ser Leu Ser Ile His Gly 340 345 350
- Arg Val Ile Gly Lys Phe Ser Ile Arg Leu Val Pro His Met Asn Val 370 3% 380
- Ser Ala Val Glu Lys Gln Val Thr Arg His Leu Glu Asp Val Phe Ser 385 390 395 400
- Lys Arg Asn Ser Ser Asn Lys Met Val Val Ser Met Thr Leu Gly Leu 405 410 415
- His Pro Trp Ile Ala Asn Ile Asp Asp Thr Gln Tyr Leu Ala Ala Lys

420 425 430

Arg Ala Ile Arg Thr Val Phe Gly Thr Glu Pro Asp Met Ile Arg Asp 435 440 445

Gly Ser Thr Ile Pro Ile Ala Lys Met Phe Gln Glu Ile Val His Lys 450 455 460

Ser Val Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser 465 470 475 480

Gln Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu 485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His 500 505

<210> 654

<211> 295

<212> PRT

<213> Homo sapiens

<400> 654

Met Ser Trp Pro His Gly Ala Leu Leu Phe Leu Trp Leu Phe Ser Pro 1 5 10 15

Pro Leu Gly Ala Gly Gly Gly Val Ala Val Thr Ser Ala Ala Gly  $20 \\ \hspace{1.5cm} 25 \\ \hspace{1.5cm} 30$ 

Gly Gly Ser Pro Pro Ala Thr Ser Cys Pro Val Ala Cys Ser Cys Ser 35 40 45

Asn Gln Ala Ser Arg Val Ile Cys Thr Arg Arg Asp Leu Ala Glu Val 50 55 60

Pro Ala Ser Ile Pro Val Asn Thr Arg Tyr Leu Asn Leu Gln Glu Asn 65 70 75 80

Gly Ile Gln Val Ile Arg Thr Asp Thr Phe Lys His Leu Arg His Leu 85 90 95

Glu Ile Leu Gln Leu Ser Lys Asn Leu Val Arg Lys Ile Glu Val Gly 100 105 110

Ala Phe Asn Gly Leu Pro Ser Leu Asn Thr Leu Glu Leu Phe Asp Asn 115 120 125

Arg Leu Thr Thr Val Pro Thr Gln Ala Phe Glu Tyr Leu Ser Lys Leu 130 135 140

Arg Glu Leu Trp Leu Arg Asn Asn Pro Ile Glu Ser Ile Pro Ser Tyr 145 150 155 160

Ala Phe Asn Arg Val Pro Ser Leu Arg Arg Leu Asp Leu Gly Glu Leu 165 170 175

Lys Arg Leu Glu Tyr Ile Ser Glu Ala Ala Phe Glu Gly Leu Val Asn  $180 \hspace{1cm} 185 \hspace{1cm} 190$ 

Leu Arg Tyr Leu Asn Leu Gly Met Cys Asn Leu Lys Asp Ile Pro Asn 195 200 205

Leu Thr Ala Leu Val Arg Leu Glu Glu Leu Glu Leu Ser Gly Asn Arg 210 215 . 220

Leu Asp Leu Ile Arg Pro Gly Ser Phe Gln Gly Leu Thr Ser Leu Arg 225 230 235 240

Lys Leu Trp Leu Met His Ala Gln Val Ala Thr Ile Glu Arg Asn Ala 245 250 255

Phe Asp Asp Leu Lys Ser Leu Glu Glu Leu Asn Leu Ser His Asn Asn 260 265 270

Leu Met Ser Leu Pro His Asp Leu Phe Thr Pro Leu His Arg Leu Glu 275 280 285

Gly Gly Pro Gly Thr Gln Phe 290 295

<210> 655

<211> 56

<212> PRT

<213> Homo sapiens

<400> 655

Met Cys Phe Thr Gln Phe Ser Arg Ile Phe Phe Leu Thr Ser Ser Leu 1 5 10 15

Thr Leu Ala Ala Cys Ala Asn His Ile Leu Ala Ala Tyr Ser Ser Ser 20 25 30

Leu Ala Asp Arg Cys Val Gly Glu Lys Ser Leu Ile Val Ile Val Pro 35 40 45

Glu Arg Ser Phe Gln Thr His Phe 50 55

<210> 656

<211> 44

<212> PRT

<213> Homo sapiens

<400> 656

Met Arg Lys Thr Ala Trp Leu Cys Phe Phe Phe Gln Leu Cys Gly Leu
1 5 10 15

Gly Gln Val Thr Ser Leu Gln Tyr ArgAsn Cys Asn Val Glu Ile Lys

20 25 30

Pro Ser Leu Val Arg Gly Thr His Arg Ser Ile Pro  $35 \hspace{1cm} 40$ 

<210> 657

<211> 77

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 657

Met Thr Gly Gln Ile Pro Arg Leu Ser Lys Val Asn Leu Phe Thr Leu
1 5 10 15

Leu Ser Leu Trp Met Glu Leu Phe Pro Ala Glu Aà Gln Arg Gln Lys
20 25 30

Ser Gln Lys Asn Glu Glu Gly Lys His Gly Pro Leu Gly Asp Asn Glu 35 40 45

Glu Arg Thr Arg Val Ser Thr Asp Lys Arg Gln Asp Tyr Trp Gù Gln 50 55 60

Leu Arg Cys Leu Xaa Glu Arg Phe Thr Ile Thr Ala Gly
65 70 75

<210> 658

<211> 108

<212> PRT

<213> Homo sapiens

<400> 658

Met Lys Ala Leu Cys Leu Leu Leu Pro Val Leu Gly Leu Leu Val 1 5 10

Ser Ser Lys Thr Leu Cys Ser Met Glu Glu Ala Ile Asn Glu Arg Ile 20 25 30

Gln Glu Val Ala Gly Ser Leu Ile Phe Arg Ala Ile Ser Ser Ile Gly 35 40 45

Leu Glu Cys Gln Ser Val Thr Ser Arg Gly Asp Leu Ala Thr Cys Pro
50 60

Arg Gly Phe Ala Val Thr Gly Cys Thr Cys Gly Ser AlaCys Gly Ser 65 70 75 80

Trp Asp Val Arg Ala Glu Thr Thr Cys His Cys Gln Cys Ala Gly Met

95

Asp Trp Thr Gly Ala Arg Cys Cys Arg Val Gln Pro 100 105

<210> 659

<211> 44

<212> PRT

<213> Homo sapiens

<400> 659

Ser Phe Leu Thr Ieu Ser Trp Tyr Thr Thr Trp Gln Asn Gly Lys Gly 20 25 30

Lys Glu Asn Asp Ser Glu Asn Val His Glu Met Tyr 35 40

<210> 660

<211> 327

<212> PRT

<213> Homo sapiens

<400> 660

Met'Ala'Cys Arg Lys Leu Ala Val Ala His Pro Leu Leu Leu Arg

His Leu Pro Met Ile Ala Ala Leu Leu His Gly Arg Thr His Leu Asn 20 25 30

Phe Gln Glu Phe Arg Gln Gln Asn His Leu Ser Cys Phe Leu His Val 35 40 45

Leu Gly Leu Leu Glu Leu Gln Pro His Val Phe Arg Ser Glu His 50 55 60

Gln Gly Ala Leu Trp Asp Cys Leu Leu Ser Phe Ile Arg Leu Leu 65 70 75 80

Asn Tyr Arg Lys Ser Ser Arg His Leu Ala Ala Phe Ile Asn Lys Phe 85 90 95

Val Gln Phe Ile His Lys Tyr Ile Thr Tyr Asn Ala Pro Ala Ala Ile  $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$ 

Ser Phe Leu Gln Lys His Ala Asp Pro Leu His Asp Leu Ser Phe Asp 115 120 125

Asn Ser Asp Leu Val Met Leu Lys Ser Leu Leu Ala Gly Leu Ser Leu 130 135 140

Pro Ser Arg Asp Asp Arg Thr Asp Arg Gly Leu Asp Glu Glu Glu 145 150 155 160

Glu Glu Ser Ser Ala Gly Ser Leu Pp Leu Val Ser Val Ser Leu Phe 165 170 175

Thr Pro Leu Thr Ala Ala Glu Met Ala Pro Tyr Met Lys Arg Leu Ser 180 185 190

Arg Gly Gln Thr Val Glu Asp Leu Leu Glu Val Leu Ser Asp Ile Asp 195 200 205

Glu Met Ser Arg Arg Pro Glu Ile Leu Ser Phe Phe Ser Thr Asn 210 215 220

Leu Gln Arg Leu Met Ser Ser Ala Glu Glu Cys Cys Arg Asn Læ Ala 225 230 235 240

Phe Ser Leu Ala Leu Arg Ser Met Gln Asn Ser Pro Ser Ile Ala Ala 245 250 255

Ala Phe Leu Pro Thr Phe Met Tyr Cys Leu Gly Ser Gln Ap Phe Glu 260 265 270

Val Val Gln Thr Ala Leu Arg Asn Leu Pro Glu Tyr Ala Leu Leu Cys 275 280 285

Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu Val Gly Met 290 295 300

Tyr Gly Gln Met Asp Pro Ser Ala Gln Ile Ser Glu Ala Leu Arg Ile 305 310 315

Leu His Met Glu Ala Val Met 325

<210> 661

<211> 80

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (34)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 661

Met Asn Val Thr Ser Val Ile Leu Val Leu Ile Leu Trp Asn Val Ile
1 5 10 15

Gly Val Ala Thr Trp Val His Gln Asn Thr Phe Leu Tyr Lys Arg Gln
20 25 30

Met Xaa Glu Leu Lys Arg Leu Lys Asp Arg Val Phe Cys Phe Phe Val 35 40 45 Leu Ile Trp Leu Leu Gly Ile Lys Ile Arg Pro Arg Ser Leu Lys Ile 50 55 60

Ser Asn Arg Gly Arg Pro Leu Ile Asp Leu Lys Ser Val Asn Ser Leu 65 70 75 80

<210> 662

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (109)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 662

Met Ala Ala Leu Leu Leu Pro Trp Leu Met Leu Leu Thr Gly Arg
1 5 10 15

Val Ser Leu Ala Gln Phe Ala Leu Ala Phe Val Thr Asp Thr Cys Val 20 25 6

Ala Gly Ala Leu Cys Gly Ala Xaa Leu Leu Phe His Gly Met Leu 35 40 45

Leu Leu Arg Gly Gln Thr Thr Trp Glu Trp Ala Arg Gly Gln His Ser 50 60

Tyr Asp Leu Gly Pro Cys His Asn Leu Gln Ala Ala Leu Gly Pro Arg 65 70 75 80

Trp Ala Leu Val Trp Leu Trp Pro Phe Leu Ala Ser Pro Leu Pro Gly 85 90 95

Asp Gly Ile Thr Phe Gln Thr Thr Ala Asp Val Gly Xaa Thr Ala Ser 100 105 110

<210> 663

<211> 91

<212> PRT

<213> Homo sapiens

<400> 663

Met Gly Asp Lys Leu Gly Met Ala Arg Ala Pro Ser Val Ala Leu Ala 1 5 10 15

Gln Leu Trp Leu Ile Cys Leu Cys Pro Glu Ser Leu Ala Ser Phe Val 20 25 30

Gln Ala Val Pro Trp Lys Val Leu Gln Pro Ser Ser Asn Arg Ser Thr 35 40 45

Asp Cys Ser Pro His Met Arg Pro Thr Cys Glu Thr Leu Gly Ser Arg 50 55 60

Lys Ala Gln Asp Leu Val Leu Asp Thr Met Cys Leu Ser Thr Asp Asp 65 70 75 80

Cys Gln Gly Leu Ile Cys Arg Gly His Arg Ser

<210> 664

<211> 223

<212> PRT

<213> Homo sapiens

<400> 664

Ala Trp Tyr Leu Leu Arg Val Gln Val Leu Gln Leu Val Ala Aa Tyr 1 5 10 15

Leu Ser Leu Pro Ser Asn Asn Leu Ser His Ser Leu Trp Glu Gln Leu 20 25 30

Cys Ala Gln Gly Trp Gln Thr Pro Glu Ile Ala Leu Ile Asp Ser  $\pm$ s 35 40 45

Lys Leu Leu Arg Ser Ile Ile Leu Leu Met Gly Ser Asp Ile Leu 50 60

Ser Thr Gln Lys Ala Ala Val Glu Thr Ser Phe Leu Asp Tyr Gly Glu 65 70 75 80

Asn Leu Val Gln Lys Trp Gln Val Leu Ser Glu Val Leu Ser Cys Ser 85 90 95

Glu Lys Leu Val Cys His Leu Gly Arg Leu Gly Ser Val Ser Glu Ala 100 105 110

Lys Ala Phe Cys Leu Glu Ala Leu Lys Leu Thr Thr Lys Leu Gln Ile 115 120 125

Pro Arg Gln Cys Ala Leu Phe Leu Val Leu Lys Gly Glu Leu Glu Leu 130 135 140

Ala Arg Asn Asp Ile Asp Leu Cys Gln Ser Asp Leu Gln Gln Val Leu

145 150 155 160

Phe Leu Leu Glu Ser Cys Thr Glu Phe Gly Gly Val Thr Gln His Leu 165 170 175

Asp Ser Val Lys Lys Val His Leu Gln Lys Gly Lys Gln Gln Ala Gln 180 185 190

Val Pro Cys Pro Pro Gln Leu Pro Glu Glu Glu Leu Phe Leu Arg Gly 195 200 205

Pro Ala Leu Glu Leu Val Pro Leu Trp Pro Arg Ser Leu Ala Pro 210 215 220

<210> 665

<211> 47

<212> PRT

<213> Homo sapiens

<400> 665

Met Gly Val Leu Leu Phe Ser Phe Phe Phe Pro Asn GlySer Phe 1 5 10 15

Ser Pro Val Val Leu Pro Ser Tyr Phe Pro Asn Ser Ser Ser Tyr Phe 20 25 30

Val Phe Cys Thr Ser Phe Trp Arg Pro Leu Ser Phe Gln Lys Gly
35 40 45

<210> 666

<211> 243

<212> PRT

<213> Homo sapiens

<400> 666

Met Gly Thr Leu Pro Trp Leu Leu Ala Phe Phe Ile Leu Gly Leu Gln
1 5 10 15

Ala Trp Asp Thr Pro Thr Ile Val Ser Arg Lys Glu Trp Gly Ala Arg
20 25 30

Pro Leu Ala Cys Arg Ala Leu Leu Thr Leu Pro Val Ala Tyr Ile Ile 35 40 45

Thr Asp Gln Leu Pro Gly Met Gln Cys Gln Gln Gln Ser Val Cys Ser 50 55 60

Gln Met Leu Arg Gly Leu Gln Ser His Ser Val Tyr Thr Ile Gly Trp 65 70 75 80

Cys Asp Val Ala Tyr Asn Phe Leu Val Gly Asp Asp Gly Arg Val Tyr 85 90 95

- Glu Gly Val Gly Trp Asn Ile Gln Gly Leu His Thr Gln Gly Tyr Asn 100 105 110
- Asn Ile Ser Leu Gly Ile Ala Phe Phe Gly Asn Lys Ile Ser Ser Ser 115 120 125
- Pro Ser Pro Ala Ala Leu Ser Ala Ala Glu Gly Leu Ile Ser Tyr Ala 130 135 140
- Ile Gln Lys Gly His Leu Ser Pro Arg Tyr IleGln Pro Leu Leu 145 150 155 160
- Lys Glu Glu Thr Cys Leu Asp Pro Gln His Pro Val Met Pro Arg Lys 165 170 175
- Val Cys Pro Asn Ile Ile Lys Arg Ser AlaTrp Glu Ala Arg Glu Thr 180 185 190
- His Cys Pro Lys Met Asn Leu Pro Ala Lys Tyr Val Ile Ile His 195 200 205
- Thr Ala Gly Thr Ser Cys Thr Val Ser Thr Asp Cys GlnThr Val Val 210 215 220
- Arg Asn Ile Gln Ser Phe His Met Asp Thr Arg Asn Phe Cys Asp Ile 225 230 235 240

Gly Tyr Gln

<210> 667

<211> 80

<212> PRT

<213> Homo sapiens

<400> 667

Met Lys Leu Ser Gly Met Phe Leu Leu Ser Leu Ala Leu Phe Cys  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Phe Leu Thr Gly Val Phe Ser Gln Gly Gly Gln Val Asp Cys Gly Glu 20 25 30

Phe Gln Asp Thr Lys Val Tyr Cys Thr Arg Glu Ser Asn Pro His Cys 35 40 45

Gly Ser Asp Gly Gln Thr Tyr Gly Asn Lys Cys Ala Phe Cys Lys Ala 50 55 60

Ile Val Lys Ser Gly Gly Lys Ile Ser Leu Lys His Pro Gly Lys Cys
65 70 75 80

```
<210> 668
```

<211> 301

<212> PRT

<213> Homo sapiens

<400> 668

Met Ala Arg His Gly Leu Pro Leu Leu Pro Leu Bu Ser Leu Leu Val 1 5 10 15

Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr Ser Met Val Gln 20 25 30

Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Po Asp Ser Arg 35 40 45

Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala Ile 50 55 60

Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg Glu 65 70 75 80

Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val Phe 85 90 95

Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro Met  $100 \hspace{1.5cm} 105 \hspace{1.5cm} 110$ 

Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg Gln 115 120 125

Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro Val 130 135 140

Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg Gly 145 150 155 160

Lys Arg Leu Pro Thr Glu Glu Glu Trp Glu Phe Ala Ala Arg Gly Gly 165 170 175

Leu Lys Gly Gln Val Tyr Pro Trp Gly Asn Trp Phe Gln Pro Asn Arg 180 185 190

Thr Asn Leu Trp Gln Gly Lys Phe Pro Lys Gly Asp Lys Ala Glu Asp 195 200 205

Gly Phe His Gly Val Ser Pro Val Asn Ala Phe Pro Ala Gln Asn Asn 210 215 220

Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser 225 230 235 240

Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly Ala Ser 245 250 255

Trp Ile Asp Thr Ala Asp Gly Ser Ala Asn His Arg Ala Arg Val Thr 260 265 270

Thr Arg Met Gly Asn Thr Pro Asp Ser Ala Ser Asp Asn Leu Gly Phe 275 280 285

Arg Cys Ala Ala Asp Ala Gly Arg Pro Pro Gly Glu Leu 290 295 300

<210> 669

<211> 44

<212> PRT

<213> Homo sapiens

<400> 669

Met Ala Ser Gly Ser Trp Thr Ser Ala Pro Gly Ile Gly Val Ile Leu 1 10 15

Val Met Thr Val Cys Leu Ser His Cys Tyr Thr His Glu Trp Gly Leu 20 25 30

Trp Gly Gly Gly Thr Gln Gly Leu Thr Asp Ser 35

<210> 670

<211> 438

<212> PRT

<213> Homo sapiens

<400> 670

Met Pro Cys Thr Cys Thr Trp Arg Asn Trp Arg GlnTrp Ile Arg Pro  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Leu Val Ala Val Ile Tyr Leu Val Ser Ile Val Val Ala Val Pro Leu 20 25 30

Cys Val Trp Glu Leu Gln Lys Leu Glu Val Gly Ile HisThr Lys Ala 35 40 45

Trp Phe Ile Ala Gly Ile Phe Leu Leu Thr Ile Pro Ile Ser Leu
50 55 60

Trp Val Ile Leu Gln His Leu Val His Tyr Thr Gln Pro Glu Leu Gln 65 70 75 80

Lys Pro Ile Ile Arg Ile Leu Trp Met Val Pro Ile Tyr Ser Leu Asp 85 90 95

Ser Trp Ile Ala Leu Lys Tyr Pro Gly Ile Ala Ile Tyr Val Asp Thr 100 105 110

Cys Arg Glu Cys Tyr Glu Ala Tyr Val Ile Tyr Asn Phe Met Gly Phe 115 120 125

Leu Thr Asn Tyr Leu Thr Asn Arg Tyr Pro Asn Leu Val Leu Ile Leu

|            | 130        |            |            |            |            | 135        |            |            |            |            | 140        |            |            |            |                        |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------------------|
| Glu<br>145 | Ala        | Lys        | Asp        | Gln        | Gln<br>150 | Lys        | His        | Phe        | Pro        | Pro<br>155 | Leu        | Cys        | Cys        | Cys        | Pro<br>160             |
| Pro        | Trp        | Ala        | Met        | Gly<br>165 | Glu        | Val        | Leu        |            | Phe<br>170 | Arg        | Cys        | Lys        |            | Gly<br>175 | Val                    |
| Leu        | Gln        | Tyr        | Thr<br>180 | Val        | Val        | Arg        | Pro        | Phe<br>185 | Thr        | Thr        | Ile        | Val        | Ala<br>190 | Leu        | Ile                    |
| Cys        | Glu        | Leu<br>195 | Leu        | Gly        | Ile        |            | Asp<br>200 | Glu        | Gly        | Asn        |            | Ser<br>205 | Phe        | Ser        | Asn                    |
| Ala        | Trp<br>210 | Thr        | Tyr        | Leu        | Val        | Ile<br>215 | Ile        | Asn        | Asn        | Met        | Ser<br>220 | Gln        | Leu        | Phe        | Ala                    |
| Met<br>225 | Tyr        | Cys        | Leu        | Leu        | Leu<br>230 | Phe        | Tyr        | Lys        | Val        | Leu<br>235 | Lys        | Glu        | Glu        | Leu        | Ser<br>240             |
| Pro        | Ile        | Gln        | Pro        | Val<br>245 | Gly        | Lys        | Phe        | Leu        | Cys<br>250 | Val        | Lys        | Leu        | Val        | Val<br>255 | Phe                    |
| Val        | Ser        | Phe        | Trp<br>260 | Gln        | Ala        | Val        | Val        | Ile<br>265 | Ala        | Leu        | Leu        |            | Lys<br>270 | Val        | Gly                    |
| Val        | Ile        | Ser<br>275 | Glu        | Lys        | His        | Thr        | Trp<br>280 | Glu        | Trp        | Gln        | Thr        | Val<br>285 | Glu        | Ala        | Val                    |
| Ala        | Thr<br>290 | Gly        | Leu        | Gln        | Asp        | Phe<br>295 | Ile        | Ile        | Cys        | Ile        | Glu<br>300 | Met        | Phe        | Leu        | Ala                    |
| Ala<br>305 | Ile        | Ala        | His        | His        | Tyr<br>310 | Thr        | Phe        | Ser        | Tyr        | Lys<br>315 | Pro        | Tyr        | Val        | Gln        | Glu<br>320             |
| Ala        | Glu        | Glu        | Gly        | Ser<br>325 | Cys        | Phe        | Asp        | Ser        | Phe<br>330 | Leu        | Ala        | Met        | Trp        | Asp<br>335 | Val                    |
| Ser        | Asp        | Ile        | Arg<br>340 | Asp        | Asp        | Ile        | Ser        | Glu<br>345 |            | Val        | Arg        | His        | Val<br>350 | Gly        | Arg                    |
| Thr        | Val        | Arg<br>355 |            | His        | Pro        | Arg        | Lys<br>360 | Lys        | Leu        | Phe        | Pro        | Glu<br>365 |            | Gln        | Asp                    |
| Gln        | Asn<br>370 |            | His        | Thr        | Ser        | Leu<br>375 | Leu        | Ser        | Ser        | Ser        | Ser<br>380 |            | Asp        | Ala        | Ile                    |
| Ser<br>385 |            | Ala        | Ser        | Ser        | Met<br>390 |            | Pro        | Ser        | Pro        | Met<br>395 |            | His        | Tyr        | Gln        | Gl <sub>3</sub><br>400 |
| Phe        | Gly        | His        | Thr        | Val<br>405 |            | Pro        | Gln        | Thr        | Thr<br>410 |            | Thr        | Thr        | Ala        | Lys<br>415 |                        |
| Ser        | Asp        | Glu        | Ile<br>420 |            | Ser        | Asp        | Thr        | Ile<br>425 |            | Glu        | Lys        | Lys        | Glu<br>430 |            | Sei                    |

Asp Lys Ser Val Asp Ser

```
<210> 671
```

<211> 107

<212> PRT

<213> Homo sapiens

<400> 671

Met Val Arg Tyr Thr Tyr Ser Met Leu Ser Val Ile Gly Ile Ser Tyr 1  $\phantom{\bigg|}$  5  $\phantom{\bigg|}$  10  $\phantom{\bigg|}$  15

Ala Val Leu Thr Trp Leu Ser Gln Thr Leu Trp Met Pro Ile Tyr Pro 20 25 30

Leu Cys Val Leu Ala Glu Ala Phe Ala Ile Tyr Gln Ser Leu Pro Tyr 35 40 45

Phe Glu Ser Phe Gly Thr Tyr Ser Thr Lys Leu Pro Phe Ap Leu Ser 50 55 60

Ile Tyr Phe Pro Tyr Val Leu Lys Ile Tyr Leu Met Met Leu Phe Ile 65 70 75 80

Gly Met Tyr Phe Thr Tyr Ser His Leu Tyr Ser Glu Arg Arg Asp Ie 85 90 95

Leu Gly Ile Phe Pro Ile Lys Lys Lys Met 100 105

<210> 672

<211> 234

<212> PRT

<213> Homo sapiens

<400> 672

Met Arg Ile Arg Phe Thr Ser Pro His Pro Lys Asp Phe Pro Asp Glu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Leu Gln Leu Ile His Glu Arg Asp Asn Ile Cys Lys Gln Ile His 20 25 30

Leu Pro Ala Gln Ser Gly Ser Ser Arg Vd Leu Glu Ala Met Arg Arg 35 40 45

Gly Tyr Ser Arg Glu Ala Tyr Val Glu Leu Val His His Ile Arg Glu 50 55 60

Ser Ile Pro Gly Val Ser Leu Ser Ser Asp Phe Ile Ala Gly Pt Cys
65 70 75 80

Gly Glu Thr Glu Glu Asp His Val Gln Thr Val Ser Leu Leu Arg Glu 85 90 95

- Val Gln Tyr Asn Met Gly Phe Leu Phe Ala Tyr Ser Met Ag Gln Lys 100 105 110
- Thr Arg Ala Tyr His Arg Leu Lys Asp Asp Val Pro Glu Glu Val Lys 115 120 125
- Leu Arg Arg Leu Glu Glu Leu Ile Thr Ile Phe Arg Glu Glu Ala Thr 130 135 140
- Lys Ala Asn Gln Thr Ser Val Gly Cys Thr Gln Leu Val Leu Val Glu 145 150 155 160
- Gly Leu Ser Lys Arg Ser Ala Thr Asp Leu Cys Gly Arg Asn Asp Gly 165 170 175
- Asn Leu Lys Val Ile Phe Pro Asp Ala Glu Met Glu Asp Val Asn Asn 180 185 190
- Pro Gly Leu Arg Val Arg Ala Gln Pro Gly Asp Tyr Val Leu Val Lys 195 200 205
- Ile Thr Ser Ala Ser Ser Gln Thr Leu Arg Gly His Val Leu Cys Arg
  210 215 220
- Thr Thr Leu Arg Asp Ser Ser Ala Tyr Cys 235

<210> 673

<211> 470

<212> PRT

<213> Homo sapiens

<400> 673

- Met Trp Phe Thr Tyr Leu Leu Leu Tyr Leu His Ser Val Arg Ala Tyr
  1 5 10 15
- Ser Ser Arg Gly Ala Gly Leu Leu Leu Leu Gly Gln Val Ala Asp  $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$
- Gly Leu Cys Thr Pro Leu Val Gly Tyr Glu Ala Asp Arg Ala Ala Ser 35 40 45
- Cys Cys Ala Arg Tyr Gly Pro Arg Lys Ala Trp His Leu Val Gly Thr 50 55 60
- Val Cys Val Leu Leu Ser Phe Pro Phe Ile Phe Ser Pro Cys Leu Gly 65 70 75 80
- Cys Gly Ala Ala Thr Pro Glu Trp Ala Ala Leu Leu Tyr Tyr Gly Pro 85 90 95
- Phe Ile Val Ile Phe Gln Phe Gly Trp Ala Ser Thr Gln Ile Ser His 100 105 110
- Leu Ser Leu Ile Pro Glu Leu Val Thr Asn Asp His Glu Lys Val Glu

|            |            | 115        |            |            |            |            | 120        |            |            |            |            | 125        |            |            |            |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Leu        | Thr<br>130 | Ala        | Leu        | Arg        | Tyr        | Ala<br>135 | Phe        | Thr        | Val        | Val        | Ala<br>140 |            | Ile        | Thr        | Val        |
| Tyr<br>145 | Gly        | Ala        | Ala        | Trp        | Leu<br>150 | Leu        | Leu        | His        | Leu        | Gln<br>155 |            | Ser        | Ser        | Arg        | Val<br>160 |
| Glu        | Pro        | Thr        | Gln        | Asp<br>165 | Ile        | Ser        | Ile        | Ser        | Asp<br>170 | Gln        | Leu        | Gly        | Gly        | Gln<br>175 |            |
| Val        | Pro        | Val        | Phe<br>180 | Arg        | Asn        | Leu        | Ser        | Leu<br>185 | Leu        | Val        | Val        | Gly        | Val<br>190 | Gly        | Ala        |
| Val        | Phe        | Ser<br>195 | Leu        | Leu        | Phe        | His        | Leu<br>200 | Gly        | Thr        | Arg        | Glu        | Arg<br>205 | _          | Arg        | Pro        |
| His        | Ala<br>210 | Glu        | Glu        | Pro        | Gly        | Glu<br>215 | His        | Thr        | Pro        | Leu        | Leu<br>220 |            | Pro        | Ala        | Thr        |
| Ala<br>225 | Gln        | Pro        | Leu        | Leu        | Leu<br>230 | Trp        | Lys        | His        | Trp        | Leu<br>235 | _          | Glu        | Pro        | Ala        | Phe<br>240 |
| Tyr        | Gln        | Val        | Gly        | Ile<br>245 | Leu        | Tyr        | Met        | Thr        | Thr<br>250 | Arg        | Leu        | Ile        | Val        | Asn<br>255 | Leu        |
| Ser        | Gln        | Thr        | Tyr<br>260 | Met        | Ala        | Met        | Tyr        | Leu<br>265 | Thr        | Tyr        | Ser        | Leu        | His<br>270 | Leu        | Pro        |
| Lys        | Lys        | Phe<br>275 | Ile        | Ala        | Thr        | Ile        | Pro<br>280 | Leu        | Val        | Met        | Tyr        | Leu<br>285 |            | Gly        | Phe        |
| Leu        | Ser<br>290 | Ser        | Phe        | Leu        | Met        | Lys<br>295 | Pro        | Ile        | Asn        | Lys        | Cys<br>300 |            | Gly        | Arg        | Asn        |
| Met<br>305 | Thr        | Tyr        | Phe        | Ser        | Gly<br>310 | Leu        | Leu        | Val        | Ile        | Leu<br>315 |            | Phe        | Ala        | Ala        | Trp<br>320 |
| Val        | Ala        | Leu        | Ala        | Glu<br>325 | Gly        | Leu        | Gly        | Val        | Ala<br>330 | Val        | Tyr        | Ala        | Ala        | Ala<br>335 | Val        |
| Leu        | Leu        | Gly        | Ala<br>340 | Gly        | Cys        | Ala        | Thr        | Ile<br>345 | Leu        | Val        | Thr        | Ser        | Leu<br>350 | Ala        | Met        |
| Thr        | Ala        | Asp<br>355 | Leu        | Ile        | Gly        | Pro        | His<br>360 | Thr        | Asn        | Ser        | Gly        | Ala<br>365 |            | Val        | Tyr        |
| Gly        | Ser<br>370 | Met        | Ser        | Phe        | Leu        | Asp<br>375 | Lys        | Val        | Ala        | Asn        | Gly<br>380 |            | Ala        | Val        | Met        |
| Ala<br>385 | Ile        | Gln        | Ser        | Leu        | His<br>390 | Pro        | Cys        | Pro        | Ser        | Glu<br>395 | Leu        | Cys        | Cys        | Arg        | Ala<br>400 |
| Cys        | Val        | Ser        | Phe        | Tyr<br>405 | His        | Trp        | Ala        | Met        | Val<br>410 | Ala        | Val        | Thr        | Gly        | Gly<br>415 | Val        |
| Gly        | Val        | Ala        | Ala        | Ala        | Leu        | Cys        | Leu        | Cys        | Ser        | Leu        | Leu        | Leu        | Trp        | Pro        | Thr        |

420 425 430

Arg Leu Arg Arg Ser Arg Gly Gly Glu His Arg Thr Pro Ser Glu Gly 435 440 445

Glu Gly Ile Ser Thr Ala Pro Pro Pro Cys Trp Asn Glu Thr Gln Pro 450 460

Gln Gly Gly Ala Lys Leu 465 470

<210> 674

<211> 260

<212> PRT

<213> Homo sapiens

<400> 674

Met Ala Gly Ser Pro Leu Leu Trp Gly Pro Arg Ala Gly Gly Val Gly
1 5 10 15

Leu Leu Val Leu Leu Leu Gly Leu Phe Arg Pro Pro Ala Leu 20 25 30

Cys Ala Arg Pro Val Lys Glu Pro Arg Gly Leu Ser Ala Ala Ser Pro 35 40 45

Pro Leu Ala Glu Thr Gly Ala Pro Arg Arg Phe Arg Arg Ser Val Pro 50 60

Arg Gly Glu Ala Ala Gly Ala Val Gln Asp Leu Ala Arg Ala Leu Ala 65 70 75 80

His Leu Leu Glu Ala Glu Arg Gln Glu Arg Ala Arg Ala Glu Ala Gln 85 90 95

Glu Ala Glu Asp Gln Gln Ala Arg Val Leu Ala Gln Leu Leu Arg Val 100 105 110

Trp Gly Ala Pro Arg Asn Ser Asp Pro Ala Leu Gly Leu Asp Asp Asp 115 120 125

Pro Asp Ala Pro Ala Ala Gln Leu Ala Arg Ala Leu Leu Arg Ala Arg 130 135 140

Leu Asp Pro Ala Ala Leu Ala Ala Gln Leu Val Pro Ala Pro Val Pro 145 150 155 160

Ala Ala Ala Leu Arg Pro Arg Pro Pro Val Tyr Asp Asp Gly Pro Ala 165 170 175

Gly Pro Asp Ala Glu Glu Ala Gly Asp Glu Thr Pro Asp Val Asp Pro 180 185 190

Glu Leu Leu Arg Tyr Leu Leu Gly Arg Ile Leu Ala Gly Ser Ala Asp 195 200 205 Ser Glu Gly Val Ala Ala Pro Arg Arg Leu Arg Arg Ala Ala Asp His 210 220

Asp Val Gly Ser Glu Leu Pro Pro Glu Gly Val Leu Gly Ala Leu Leu 225 230 235 240

Arg Val Lys Arg Leu Glu Thr Pro Ala Pro Gln Val Pro Ala Arg Arg 245 250 255

Leu Leu Pro Pro 260

<210> 675

<211> 95

<212> PRT

<213> Homo sapiens

<400> 675

Met His Leu Cys Ile Cys Ala Val Trp Val Le Val Ala Leu Leu Arg
1 5 10 15

Met His Gly Ala Ser Pro Ala Gln Thr Ser Gly Thr Arg Ser Gly Asn 20 25 30

Gly Gly Cys Arg Arg His Gly Ala Gly Gln Gly A**g** Gly Ala Ala Thr 35 40 45

Gln Pro Leu Arg Pro Pro Arg Gly Thr Ala Ser Gly Gln Leu Met Ala 50 60

Leu Leu Ser Ala Leu Leu Pro Arg Leu Ser Gly Ser Ser Thr Pro Met
65 70 75 80

Met Ala His Gly Arg Pro Ala Pro Pro Gln Trp Ser Arg Val Ser 85 90 95

<210> 676

<211> 130

<212> PRT

<213> Homo sapiens

<400> 676

Met Glu Thr Leu Gly Ala Leu Leu Val Leu Glu Phe Leu Leu Ser 1 5 10 15

Pro Val Glu Ala Gln Gln Ala Thr Glu His Arg Leu Lys Pro Trp Leu 20 25 30

Val Gly Leu Ala Ala Val Val Gly Phe Leu Phe Ile Val Tyr Leu Val 35 40 45

Leu Leu Ala Asn Arg Leu Trp Cys Ser Lys Ala Arg Ala Glu Asp Glu

50 55 60

Glu Glu Thr Thr Phe Arg Met Glu Ser Asn Leu Tyr Gln Asp Gln Ser 65 70 75 80

Glu Asp Lys Arg Glu Lys Lys Glu Ala Lys Glu Lys Glu Glu Lys Arg 85 90 95

Lys Lys Glu Lys Lys Thr Ala Lys Glu Gly Glu Ser Asn Leu Gly Leu
100 105 110

Asp Leu Glu Glu Lys Glu Pro Gly Asp His Glu Arg Ala Lys Ser Thr 115 120 125

Val Met 130

<210> 677

<211> 80

<212> PRT

<213> Homo sapiens

<400> 677

Met Ser Leu Ile Trp Arg Asp Val Tyr Leu Tyr Gly Cys Gly Cys Ile 1 5 10 15

Cys His Gly Arg Cys Cys Ala Gly Phe Pro Gln His Ser Arg His Val 20 25 30

Trp Arg Thr Asn Ala Gly Leu Ile Leu Pro Gly Asn Arg Val Pro Phe 35 40 45

Cys Glu Leu Glu Gly Cys Thr Arg Arg Ser Ser Tyr Trp Asn His Leu 50 55 60

Val Ile Leu Gly Gly His Trp Gly Leu His Leu Pro Cys Thr Ser Leu 65 70 75 80

<210> 678

<211> 49

<212> PRT

<213> Homo sapiens

<400> 678

Met Phe Pro Trp Cys Val Cys Val Ile Ala Cys Ile Ser Ala Val Thr
1 5 10 15

Pro Leu Ile Gln Gly Phe Thr Phe Cys Ser Phe Ser Tyr Pro Gln Tyr 20 25 30

```
Ser Thr Val Arg Tyr Phe Glu Arg Glu Thr Thr Leu Thr Leu Leu Leu 35 40 45
```

Leu

<210> 679

<211> 41

<212> PRT

<213> Homo sapiens

<400> 679

Met Asn Leu Ser Phe Leu Ser Phe Phe Leu Phe Phe Tyr Leu Leu Trp  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Ser Pro Ala Glu Ser Val Tyr Lys Lys Gly Met Val Lys Lys Asn Leu 20 25 30

Ser His Ser Ile Val Glu Lys Ile Lys 35 40

<210> 680

<211> 50

<212> PRT

<213> Homo sapiens

<400> 680

Met Met Gly Leu Leu Glu Thr Gly Asn Val Leu Phe Trp Val Trp Val 1 5 10 15

Val Val Thr Cys Val Tyr Ser Leu Tyr Ala Asn Ser Leu Asn Cys Mr 20 25 30

Asp Met Asp Cys Ala Pro Phe Tyr Met Cys Val Met Leu Gln Gln Lys 35 40 45

Cys Gln 50

<210> 681

<211> 318

<212> PRT

<213> Homo sapiens

<400> 681

Met Ala Lys Arg Thr Phe Ser Asn Leu Glu Thr Phe Leu Ile Phe Leu 1 5 10 15

Leu Val Met Met Ser Ala Ile Thr Val Ala Leu Leu Ser Leu Leu Phe 20 25 30 Ile Thr Ser Gly Thr Ile Glu Asn His Lys Asp Leu Gly Gly His Phe 35 40 45Phe Ser Thr Thr Gln Ser Pro Pro Ala Thr Gln Gly Ser Thr Ala Ala

Gln Arg Ser Thr Ala Thr Gln His Ser Thr Ala Thr Gln Ser Ser Thr 65 70 75 80

Ala Thr Gln Thr Ser Pro Val Pro Leu Thr Pro Glu Ser Pro Leu Phe 85 90 95

Gln Asn Phe Ser Gly Tyr His Ile Gly Val Gly Arg Ala Asp Cys Thr 100 105 110

Gly Gln Val Ala Asp Ile Asn Leu Met Gly Tyr Gly Lys Ser Gly Gln 115 120 125

Asn Ala Gln Gly Ile Leu Thr Arg Leu Tyr Ser Arg Ala Phe Ile Met 130 140

Ala Glu Pro Asp Gly Ser Asn Arg Thr Val Phe Val Ser Ile Asp Ile 145 150 155 160

Gly Met Val Ser Gln Arg Leu Arg Leu Glu Val Leu Asn Arg Leu Gln 165 170 175

Ser Lys Tyr Gly Ser Leu Tyr Arg Arg Asp Asn Val Ile Leu Ser Gly 180 185 190

Thr His Thr His Ser Gly Pro Ala Gly Tyr Phe Gln Tyr Thr Val Phe 195 200 205

Val Ile Ala Ser Glu Gly Phe Ser Asn Gln Thr Phe Gln His Met Val 210 215 220

Thr Gly Ile Leu Lys Ser Ile Asp Ile Pro His Th Asn Met Lys Pro 225 230 235 240

Gly Lys Ile Phe Ile Asn Lys Gly Asn Val Asp Gly Val Gln Ile Asn 245 250 255

Arg Ser Pro Tyr Ser Tyr Leu Gln Asn Pro Gh Ser Glu Arg Ala Arg 260 265 270

Tyr Ser Ser Asn Thr Asp Lys Glu Met Ile Val Leu Lys Met Val Asp 275 280 285

Leu Asn Gly Asp Asp Leu Gly Leu Ile Ser Phe Ser Phe Se Lys Ser 290 295 300

Ala Leu Gly Thr Tyr Tyr Glu Pro Arg Asn Thr Ser Leu Glu 305 310 315

<210> 682

<211> 55

<212> PRT

<213> Homo sapiens

<400> 682

Met Pro Gly Gly Arg Asp Gly Leu Leu Tyr Leu Tyr His Gly Tyr Ser 1 10 15

Ala Leu Leu Trp Pro Val Ala Phe Leu His Leu Leu Phe Leu Ile 20 25 30

Leu Leu Gly Met Cys Phe Ala Cys Cys Ile Pro Thr Ser Ser Ala Pro
35 40 45

Leu His Thr Pro Trp Leu Ala 50 55

<210> 683

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 683

Met Arg Pro Leu Leu Gly Gly Tyr Trp Val Leu Cys Leu Ser Val 1 5 10 15

Leu Gly His Ala Ala Leu Tyr His Phe Trp Leu Arg Glu Glu Gly  $\slash\hspace{-0.4em}\sla$ 

Gly Pro Pro Gln Val Xaa Ser Val Leu Ala Leu Ala Leu Pro Ala Gly
35 40 45

Ser Cys Ala Pro Gly Leu Pro Phe Pro Gly Pro Leu Ile Pro Thr Gln
50 55 60

Leu Leu Phe Ala Leu Glu Trp Gly Thr Pro Thr Pro Leu Arg Asp His 65 70 75 80

Pro Pro His Ser Met His Ser Ala Pro Gln Asn Pro Pro Val Phe Leu 85 90 95

Gly Thr His Thr Cys Pro Pro Ser Trp Tyr Phe Arg Leu Ile Pro Gln
100 105 110

Ala

<210> 684

<211> 87

<212> PRT

<213> Homo sapiens

<400> 684

Met Asp Leu Thr Val Glu Gly Phe Gln Ser Trp Met Trp Arg Gly Leu 1 5 10 15

Thr Phe Leu Leu Pro Phe Leu Phe Phe Gly His Phe Trp Gln Leu Phe 20 25 30

Asn Ala Leu Thr Leu Phe Asn Leu Ala Gln Asp Pro Gln Cys Lys Glu 35 40 45

Trp Gln Val Leu Met Cys Gly Phe Pro Phe Leu Leu Phe Leu Gly 50 55 60

Asn Phe Phe Thr Thr Leu Arg Val Val His His Lys Phe His Ser Gln 65 70 75 80

Arg His Gly Ser Lys Lys Asp

<210> 685

<211> 161

<212> PRT

<213> Homo sapiens

<400> 685

Met Ala Leu Ser Leu Thr Leu Cys Phe Val Met Phe Trp Thr Pro Asn 1 5 10 15

Val Ser Glu Lys Ile Leu Ile Asp Ile Ile Gly Val Asp Phe Ala Phe 20 25 30

Ala Glu Leu Cys Val Val Pro Leu ArgIle Phe Ser Phe Phe Pro Val 35 40 45

Pro Val Thr Val Arg Ala His Leu Thr Gly Trp Leu Met Thr Leu Lys
50 55 60

Lys Thr Phe Val Leu Ala Pro Ser Ser Val Leu Arg Ile IleVal Leu 65 70 75 80

Ile Ala Ser Leu Val Val Leu Pro Tyr Leu Gly Val His Gly Ala Thr 85 90 95

Leu Gly Val Gly Ser Leu Leu Ala Gly Phe Val Gly GluSer Thr Met 100 105 110

Val Ala Ile Ala Ala Cys Tyr Val Tyr Arg Lys Gln Lys Lys Met 115 120 125

Glu Asn Glu Ser Ala Thr Glu Gly Glu Asp Ser Ala Met Thr Asp Met 130 135 140

Pro Pro Thr Glu Glu Val Thr Asp Ile Val Glu Met Arg Glu Glu Asn 145 150 155 160

Glu

<210> 686

<211> 348

<212> PRT

<213> Homo sapiens

<400> 686

Met Asn Met Thr Gln Ala Arg Val Leu Val Ala Ala Val Val Gly Leu  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Val Ala Val Leu Leu Tyr Ala Ser Ile His Lys Ile Glu Gly His 20 25 6

Leu Ala Val Tyr Tyr Arg Gly Gly Ala Leu Leu Thr Ser Pro Ser Gly 35 40 45

Pro Gly Tyr His Ile Met Leu Pro Phe Ile Thr Thr Phe Arg Ser Val 50 60

Gln Thr Thr Leu Gln Thr Asp Glu Val Lys Asn Val Pro Cys Gly Thr 65 70 75 80

Ser Gly Gly Val Met Ile Tyr Ile Asp Arg Ile Glu Val Val Asn Met  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Leu Ala Pro Tyr Ala Val Phe Asp Ile Val Arg Asn Tyr Thr Ala Asp 100 105 110

Tyr Asp Lys Thr Leu Ile Phe Asn Lys Ile His His Glu Leu Asn Gln 115 120 125

Phe Cys Ser Ala His Thr Leu Gln Glu Val Tyr Ile Glu Leu Phe Asp 130 135 140

Gln Ile Asp Glu Asn Leu Lys Gln Ala Leu Gln Lys Asp Leu Asn Leu 145 150 155 160

Met Ala Pro Gly Leu Thr Ile Gln Ala Val Arg Val Thr Lys Pro Lys 165 170 175

Thr Lys Leu Leu Ile Ala Ala Gln Lys Gln Lys Val Val Glu Lys Glu 195 200 205

Ala Glu Thr Glu Arg Lys Lys Ala Val Ile Glu Ala Glu Lys Ile Ala 210 215 220

- Gln Val Ala Lys Ile Arg Phe Gln Gln Lys Val Met Glu LysGlu Thr 225 230 235 240
- Glu Lys Arg Ile Ser Glu Ile Glu Asp Ala Ala Phe Leu Ala Arg Glu 245 250 255
- Lys Ala Lys Ala Asp Ala Glu Tyr Tyr Ala Ala His LysTyr Ala Thr 260 265 270
- Ser Asn Lys His Lys Leu Thr Pro Glu Tyr Leu Glu Leu Lys Lys Tyr 275 280 285
- Gln Ala Ile Ala Ser Asn Ser Lys Ile Tyr Phe Gly Ser Asn Ile Pro 290 295 300
- Asn Met Phe Val Asp Ser Ser Cys Ala Leu Lys Tyr Ser Asp Ile Arg 305 310 315 320
- Thr Gly Arg Glu Ser Ser Leu Pro Ser Lys Glu Ala Leu Glu Pro Ser 325 330 335
- Gly Glu Asn Val Ile Gln Asn Lys Glu Ser Thr Gly 340 345

<210> 687

<211> 151

<212> PRT

<213> Homo sapiens

<400> 687

- Met Arg Arg Leu Leu Leu Val Thr Ser LeuVal Val Val Leu Leu Trp 1 5 10 15
- Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30
- Lys His Trp Pro Ser Glu Gln Asp Pro Glu LysAla Trp Gly Ala Arg 35 40 45
- Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro 50 55 60
- Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln 65 70 75 80
- Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr Glu 85 90 95
- Asp Thr Leu Gly Arg Val Leu Ser Pro Glu Pro Asp His Asp SerLeu 100 105 110
- Tyr His Pro Pro Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu 115 120 125
- Trp Val Met Pro Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp Gln

130 135 140

Asp His Ile Tyr His Pro Gln 145 150

<210> 688

<211> 41

<212> PRT

<213> Homo sapiens

<400> 688

Met Gln Val Ala Cys Val Met Lys Val Ser Ala Gln Trp Val Cys Phe 1 5 10 15

Phe Val Val Phe Ser Pro Leu Cys Ser Ser Val Lys Cys Ala Ser Ser 20 25 30

Gly Gln Asn Arg Gly Arg Gly Asp Gln
35 40

<210> 689

<211> 44

<212> PRT

<213> Homo sapiens

<400> 689

Met Pro Leu Cys Gly Leu Tyr Cys Leu Arg Ile Leu Met Phe Pro Leu 1 5 10 15

Arg Ser Ala Asn Ser Val Pro Leu Gln Cys Leu Pro Pro Ser Ser Leu 20 25 30

Ala Asn Lys Asp Ser His Phe Arg Ala Pro Arg Lys 35

<210> 690

<211> 116

<212> PRT

<213> Homo sapiens

<400> 690

Met Thr Pro Leu Leu Thr Leu Ile Leu Val Val Leu Met Ey Leu Pro 1 5 10 15

Leu Ala Gl<br/>n Ala Leu Asp Cys His Val Cys Ala Tyr As<br/>n Gly Asp Asn 20  $\,$  25  $\,$  30

Cys Phe Asn Pro Met Arg Cys Pro Ala Met Val Ala Tyr Cys  $\mbox{\mbox{\it M}t}$  Thr 35 40 45

Thr Arg Thr Tyr Tyr Thr Pro Thr Arg Met Lys Val Ser Lys Ser Cys

50 55 60

Val Pro Arg Cys Phe Glu Thr Val Tyr Asp Gly Tyr Ser Lys His Ala 65 70 75 80

Ser Thr Thr Ser Cys Cys Gln Tyr Asp Leu Cys Asn Gly Thr Gly Leu 85 90 95

Ala Thr Pro Ala Thr Leu Ala Leu Ala Pro Ile Leu Leu Ala Thr Leu 100 105 110

Trp Gly Leu Leu 115

<210> 691

<211> 50

<212> PRT

<213> Homo sapiens

<400> 691

Met Pro Gly Ile Leu Ala Gly Ile Pro Val Lys Asp Leu Cys Leu Ser 1 5 D 15

Leu Leu Gln Gly Phe Arg Leu Leu Leu Cys Val Cys Pro Gly Trp
20 25 30

Leu Ser Gly Trp Met Gly Gly Gln Lys Gly Ser Pro Arg Ile Val Asp  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Ile Gly 50

<210> 692

<211> 206

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (143)

<223> Xaa equals any of the naturally occurring Hamino acids

<400> 692

Met Ala Ser His Gly Leu Cys Pro Cys Leu Leu Met Gly ThrGly Trp  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Gly Leu Trp Thr Leu Leu Pro Asp Leu Glu Val Met Ala Gly Lys Gly 20 25 30

Arg Met Pro Phe Ala Gly Ile Ser Val Thr Ser Gly Phe Leu ArgSer 35 40 45

Leu Lys Arg Ala Pro Leu Pro His Thr Gly Ser Pro Asp Pro Arg Pro

50 55 60

Ser Gly Ile Trp Ser Gly Val Arg Thr Thr Ser Glu Glu Ala Gly Ala 65 70 75 80

Thr Ser Thr Gln Ile Ser Thr Ala Ala Pro Arg Phe His Ser Arg Arg 85 90 95

Lys Gly Pro Lys Arg Asn Leu Ala Pro Gln Leu Arg Val Leu Val His 100 105 110

Arg Thr Val Pro Pro Gly Gln Leu Val Tyr Ala Pro Gln Thr Val Asp 115 120 125

Ser Leu Arg Gly Thr Leu Leu Arg Pro Pro Ala Trp Leu Leu Xaa Gln 130 135 140

Val Pro Cys Phe Tyr Ser Gly Gln Pro Leu Leu Val Ser Ala Ser Val 145 150 155 160

Leu Cys Arg Asp Leu Met Gln Phe Leu Phe Leu Leu Lys Ser Tyr Leu 165 170 175

Leu Pro Phe Leu Glu Val Cys Arg Ile Gly Trp Glu Gln Ile Gln Arg 180 185 190

Ile Leu Gly Ala Gly Leu Trp Arg Gln Lys Glu Gly Asn Gly
195 200 205

<210> 693

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring Lamino acids

<220>

<221> SITE

<222> (95)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 693

Met Ala Val Val Leu Ser Xaa Lys Xaa His Arg Gly Xaa Tyr Cys Gly
1 5 10 15

Arg Thr Ser Leu Leu Ser Leu Leu Ser Cys Leu Leu Leu Leu Leu 20 25 30

Leu Leu Leu Leu Leu Leu Trp Ser Leu Ser Glu I& Lys Thr Leu 35 40 45

Lys Leu Ile Cys Ile Leu Ser Ala Arg Asp Ala Asp Gly Ser Arg Ala 50 60

Lys Ser His Gly Phe Gln Ile Arg Tyr Ser Ala His Ser Phe Gln Gly 65 70 75 80

His Arg Phe Leu Lys Gly Pro Gly Phe Glu Glu Met Ala Asn Xaa Glu 85 90 95

Pro Ser Glu Asn Leu Ile Trp Lys Thr Cys Met 100 105

<210> 694

<211> 55

<212> PRT

<213> Homo sapiens

<400> 694

Met Leu Pro Ser Asn Trp Ser Gly Thr Trp Ala Leu Ile Gln Leu Ser 1 10 15

Ile Pro Phe Thr Leu Ala Phe His Gln ProAsn Lys Asn Gln Leu Thr 20 25 30

Gln Lys Lys Arg Lys Ala Pro Gln Gly Ser Phe Asp Pro Asp Ile Tyr 35 40 45

Ile Asp Ala Ile Gly Val Pro 50 55

<210> 695

<211> 75

<212> PRT

<213> Homo sapiens

<400> 695

Met Ser Arg Phe Ile Leu Asn His Leu Val Leu Ala Ile Pro Leu Arg 1 5 10 15

Val Leu Val Val Leu Trp Ala Phe Val Leu Gly Leu Se Arg Val Met 20 25 30

Leu Gly Arg His Asn Val Thr Asp Val Ala Phe Gly Phe Phe Leu Gly 35 40 45

Tyr Met Gln Tyr Ser Ile Val Asp Tyr Cys Trp Leu Ser Pro His Ams 50 55 60

Ala Pro Val Leu Phe Leu Leu Trp Ser Gln Arg
65 70 75

<210> 696

<211> 97

<212> PRT

<213> Homo sapiens

<400> 696

Met Cys Lys Gly Leu Lys Asn Pro Glu GlyLeu Leu Leu Leu Leu 1 5 10 15

Leu Leu Phe Thr Asp Thr Ser Asn Ser His Cys Leu Pro Pro Tyr 20 25 30

Leu Ser Cys Phe Leu His Glu Arg Gln Pro GluLeu Gln Ser Val Cys 40 45

Ile Ser Ala Ala Tyr Val Leu Ala Thr Pro Pro Glu Pro Ser Phe Ile 50 55 60

Leu Val Gly Phe Ser Glu Ala Gly Phe Ala Gln Val Ala Cys Phe Leu 65 70 75 80

Lys Tyr Leu Phe Cys Arg Pro Phe Thr Arg His Gly Tyr Phe Tyr Ser 85 90 95

Gly

<210> 697

<211> 187

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (167)

<223> Xaa equals any of the naturally occurring Lamino acids

<400> 697

Met Gly Phe Phe Leu Val Leu Val Met Glu Gln Ile Thr Leu Ala Tyr  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Lys Glu Gln Ser Gly Pro Ser Pro Leu Glu Glu Thr Arg Ala Leu Leu 20 25 30

Gly Thr Val Asn Gly Gly Pro Gln His Trp His Asp Gly Pro Gly Val 35 40 45

- Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala Leu Arg Ala Cys 50 55 60
- Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe Glu Gly Leu Ala 65 70 75 80
- Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu Leu Cys Leu Ala 85 90 95
- Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu Ser Leu Arg Leu
  100 105 110
- Leu Gln Ser His Leu Arg Ala Gln ValVal Ala Gly Cys Gly Ile Leu 115 120 125
- Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly Ala Ala Leu Ala 130 135 140
- Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser Val LeuGlu Gly
  145 150 155 160
- Met Ala Ala Gly Thr Phe Xaa Tyr Ile Thr Phe Leu Glu Ile Leu Leu 165 170 175
- Phe His Pro Lys Phe Lys Gly Val Ser Arg Arg 180 185

<210> 698

<211> 113

<212> PRT

<213> Homo sapiens

<400> 698

- Met Ile Leu Ser Leu Leu Phe Ser Leu Gly Gly Pro Leu Gly Trp Gly
  1 5 10 15
- Leu Leu Gly Ala Trp Ala Gln Ala Ser Ser Thr Ser Leu Ser Asp Leu  $20 \hspace{1cm} 25 \hspace{1cm} 30 \hspace{1cm}$
- Gln Ser Ser Arg Thr Pro Gly Val Trp Lys Ala Glu Ala Glu Asp Thr 35 40 45
- Ser Lys Asp Pro Val Gly Arg Asn TrpCys Pro Tyr Pro Met Ser Lys 50 55 60
- Leu Val Thr Leu Leu Ala Leu Cys Lys Thr Glu Lys Phe Leu Ile His 65 70 75 80
- Ser Gln Gln Pro Cys Pro Gln Glu Leu Gln ThrAla Arg Lys Ser Lys 85 90 95
- Ser Cys Thr Ala Trp Pro Thr Ser Gln Cys Thr Arg Ser Ser Arg Arg 100 105 110

Cys

<210> 699

```
<211> 140
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 699
Met Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly Leu Phe Val
Ser Leu Val Phe Leu Gly Gln Ala Phe Thr Ile Met Leu Val Tyr Val
Trp Ser Arg Xaa Asn Pro Tyr Val Arg Met Asn Phe Phe Gly Leu Leu
Asn Phe Gln Ala Pro Phe Leu Pro Trp Val Leu Met Gly Phe Ser Leu
Leu Leu Gly Asn Ser Ile Ile Val Asp Leu Leu Gly Ile Ala Val Gly
His Ile Tyr Phe Phe Leu Glu Asp Val Phe Pro Asn Gln Pro Gly Gly
Ile Arg Ile Leu Lys Thr Pro Ser Ile Leu Lys Ala Ile Phe Asp Thr
                                105
            100
Pro Asp Glu Asp Pro Asn Tyr Asn Pro Leu Pro Glu Glu Arg Pro Gly
                            120
Gly Phe Ala Trp Gly Glu Gly Gln Arg Leu Gly Gly
<210> 700
<211> 278
<212> PRT
<213> Homo sapiens
<400> 700
Met Gln Trp Leu Arg Val Arg Glu Ser Pro Gly Glu Ala Thr Gly His
Arg Val Thr Met Gly Thr Ala Ala Leu Gly Pro Val Trp Ala Ala Leu
                                 25
             20
```

Leu Leu Phe Leu Leu Met Cys Glu Ile Pro Met Val Glu Leu Thr Phe 35 40 45

Asp Arg Ala Val Ala Ser Asp Cys Gln Arg Cys Cys Asp Ser Glu Asp 50 55 60

Pro Leu Asp Pro Ala His Val Ser Ser Ala Ser Ser Ser Gly Arg Pro 65 70 75 80

His Ala Leu Pro Glu Ile Arg Pro Tyr Ile Asn Ile Thr Ile Leu Lys 85 90 95

Gly Asp Lys Gly Asp Pro Gly Pro Met Gly Leu Pro Gly Tyr Met Gly 100 105 110

Arg Glu Gly Pro Gln Gly Glu Pro Gly Pro Gln Gly Ser Lys Gly Asp 115 120 125

Lys Gly Glu Met Gly Ser Pro Gly Ala Pro Cys Gln Lys Arg Phe Phe 130 135 140

Ala Phe Ser Val Gly Arg Lys Thr Ala Leu His Ser Gly Glu Asp Phe 145 150 155 160

Gln Thr Leu Leu Phe Glu Arg Val Phe Val Asn Leu Asp Gly Cys Phe 165 170 175

Asp Met Ala Thr Gly Gln Phe Ala Ala Pro Leu Arg Gly Ile Tyr Phe 180 185 190

Phe Ser Leu Asn Val His Ser Trp Asn Tyr Lys Glu Thr Tyr Val His

Ile Met His Asn Gln Lys Glu Ala Val Ile Leu Tyr Ala Gln Pro Ser 210 220

Glu Arg Ser Ile Met Gln Ser Gln Ser Val Met Leu Asp &u Ala Tyr 225 230 235

Gly Asp Arg Val Trp Val Arg Leu Phe Lys Arg Gln Arg Glu Asn Ala 245 250 255

Ile Tyr Ser Asn Asp Phe Asp Thr Tyr Ile Thr Phe &r Gly His Leu 260 265 270

Ile Lys Ala Glu Asp Asp 275

<210> 701

<211> 354

<212> PRT

<213> Homo sapiens

<400> 701

Met Trp Arg Leu Trp Pro Gly Ser Pro Leu Val Pro Leu Ser Trp Leu

Trp Pro Ala Arg Ala Ala Phe Leu Ser Gly Pro Trp Thr Leu Pro Pro 20 25 30

Cys Leu Pro Asp Pro Leu Leu Ala Val Pro Lys Cys Cys Leu Thr Leu 35 40 45

Gly Ile His Leu Leu Pro Ala Trp Pro Gly Pro Pro Val Gly Gly 50 55 60

Cys Ser Gln Leu His Arg Gly Cys Cys Tyr Pro Gly Met Gly Cys Leu 65 70 75 80

Asn Arg Asp Leu Cys Pro Pro Ser Leu Val Ser Arg Arg Trp Gly Asp  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Gln Leu Leu Trp Ser Pro Asp Gly Ser Lys Ile Leu Ala Thr Thr Pro  $100 \hspace{1cm} 105 \hspace{1cm} 110$ 

Ser Ala Val Phe Arg Val Trp Glu Ala Gln Met Trp Thr Cys Glu Arg 115 120 125

Trp Pro Thr Leu Ser Gly Arg Cys Gln Thr Gly Cys Trp Ser Pro Asp 130 135 140

Gly Ser Arg Leu Leu Phe Thr Val Leu Gly Glu Pro Leu Ile Tyr Ser 145 150 155 160

Leu Ser Phe Pro Glu Arg Cys Gly Glu Gly Lys Gly Cys Val Gly Gly 165 170 175

Ala Lys Ser Ala Thr Ile Val Ala Asp Leu Ser Glu Thr Thr Ile Gln 180 185 190

Thr Pro Asp Gly Glu Glu Arg Leu Gly Gly Glu Ala His Ser Met Val 195 200 25

Trp Asp Pro Ser Gly Glu Arg Leu Ala Val Leu Met Lys Gly Lys Pro 210 215 220

Arg Val Gln Asp Gly Lys Pro Val Ile Leu Leu Phe Arg Thr Arg Asn 225 230 235 240

Ser Pro Val Phe Glu Leu Leu Pro Cys Gly Ile Ile Gln Gly Glu Pro 245 250 255

Gly Ala Gln Pro Gln Leu Ile Thr Phe His Leu Pro Ser Thr Lys Gly 260 265 270

Pro Cys Ser Val Trp Ala Gly Pro Gln Ala Glu Leu Pro Thr Ser Arg 275 280 285

Cys Thr Leu Ser Met Pro Ser Phe His Val Leu Ala Gln Cys Leu Gly 290 295 300

Gly Pro Arg Asn Pro Leu Leu Gly Val Glu Ala Leu Phe Met Thr Cys

305 310 315 320 Pro Ser Leu Leu Arg His Pro Gln Pro Leu Pro Leu Gly Thr Leu Ser 330 Gln Gly His His Leu Phe Cys Pro Thr Pro His Ile Pro Thr Ser Lys 340 345 Asn Lys <210> 702 <211> 60 <212> PRT <213> Homo sapiens <400> 702 Met Ile Arg Ile Gln Phe Leu His Leu Phe Leu Trp Val Gly Phe Ile Phe Arg Gln Pro Pro Ser Ser Tyr Pro Gln Asp Gly Arg Asp Ser Pro Trp Ser Phe Pro Cys Arg Asp Arg Ser Pro Gly Asn Asn Thr Ser Ile Pro Ser His Glu Thr Val Leu Asn Phe Ile Leu Thr 55 <210> 703 <211> 232 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (36) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (67) <223> Xaa equals any of the naturally occurring Lamino acids

<220>

<220> <221> SITE <222> (70)

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring Lamino acids

<223> Xaa equals any of the naturally occurring Lamino acids

```
<220>
<221> SITE
<222> (82)
<220>
```

<223> Xaa equals any of the naturally occurring Lamino acids

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring bamino acids

<400> 703

Met Ala Ile Ser Ile Pro Asn Arg Ile Phe Pro Ile Thr Ala Leu Thr

Leu Leu Ala Leu Val Tyr Ser Leu Val Leu Leu Pro Phe Tyr Asn

Cys Thr Glu Xaa Thr Lys Tyr Arg Arg Phe Pro Asp Trp Leu Asp His 40

Trp Met Leu Cys Arg Lys Gln Leu Gly Leu Val Ala Leu Gly Phe Ala

Phe Leu Xaa Val Leu Xaa Xaa Leu Val Ile Pro Ile Arg Tyr Tyr Val

Arg Xaa Arg Leu Gly Asn Leu Thr Val Thr Gln Xaa Ile Leu Lys Lys

Glu Asn Pro Phe Ser Thr Ser Ser Ala Trp Leu Ser Asp Ser Tyr Val 100 105 110

Ala Leu Gly Ile Leu Gly Phe Phe Leu Phe Val Leu Leu Gly Ile Thr 120

Ser Leu Pro Ser Val Ser Asn Ala Val Asn Trp Arg Glu Phe Arg Phe 130

Val Gln Ser Lys Leu Gly Tyr Leu Thr Leu Ile Leu Cys Thr Ala His 155

Thr Leu Val Tyr Gly Gly Lys Arg Phe Leu Ser Pro Ser Asn Leu Arg

Trp Tyr Leu Pro Ala Ala Tyr Val Leu Gly Leu Ile Ile Pro Cys Thr 185

Val Leu Val Ile Lys Phe Val Leu Ile Met Pro Cys Val Asp Asn Thr

Leu Thr Arg Ile Arg Arg Ala Gly Lys Gly Thr Gln Asn Thr Arg Lys

Ser Ile Glu Trp Lys Ile Asn Ile 230

```
<210> 704
<211> 46
<212> PRT
<213> Homo sapiens
<400> 704
Met Thr Leu Ser Leu Gln Leu Ala Glu Leu Val His Phe Val Cys Ala
                                      10
Phe Gln Ser Gln Trp Thr Gly Val Tyr Pp Met Met Pro Pro Leu Lys
             20
                                  25
Pro Thr Glu Pro Leu Cys Phe Ala Cys Val Pro Cys Arg Val
                             40
<210> 705
<211> 152
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (66)
<223> Xaa equals any of the naturally occurring Hamino acids
<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (81)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (84)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (87)
<223> Xaa equals any of the naturally occurring Lamino acids
<220>
<221> SITE
<222> (93)
```

```
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring bamino acids
<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring Lamino acids
<400> 705
Met Asp His Ser Pro Thr Thr Gly Val Val Thr Val Ile Val Ile Leu
                                     10
Ile Ala Ile Ala Ala Leu Gly Ala Phe Asp Pro Gly Leu Leu Val Leu
Pro Ala Ala Ala His Gln Pro Val Arg Gly Arg Gly Glu His Arg
Gly Gly Trp Gly Asp Gln Gly Thr Leu Pro Ala Gly Ala Val Phe Gly
Gln Xaa Thr Val Arg Gly Glu Lys Gly Gln Ala Asp Xaa Ser Gln Thr
Xaa Arg Lys Xaa Thr Xaa Xaa Pro Gly 🖫s Lys Gly Xaa Leu Val Pro
Val Cys Lys Pro Ala Lys Xaa Gly Leu Gly Gly Ala Lys Xaa Ile Arg
                                105
Met Arg Cys Cys Leu Arg Gly Arg Ala Asp Thr Cys Trp His Gly Leu
        115
                            120
                                                 125
Cys Gly Phe Arg Pro Ser His Ala Leu Met Pro Gly Asp Leu Ala Val
                        135
                                             140
Leu Gly Phe Pro Ser Ala Ser Arg
                    150
<210> 706
<211> 88
<212> PRT
<213> Homo sapiens
```

<400> 706

Met Val Ala Gly Phe Val Phe Tyr Leu Gly Val Phe Val Val Cys His 1 5 10 15

Glu Lys Val Phe Trp Asp Leu Ala Ala Thr Arg Ala Val Phe Gly Val 35 40 45

Gln Ser Thr Ala Ala Ala Val Gly Ser Ala Gly Gly Pro Cys Ala Ala 50 60

Cys Arg Gln Gly Ala Trp Pro Ala Glu Leu Val Leu Val Ser His His 65 70 75 80

Asp Ser Asn Gly Ile Leu Leu Leu 85

<210> 707

<211> 340

<212> PRT

<213> Homo sapiens

<400> 707

Met Ala Leu Arg Leu Arg Arg Ala Ala Arg Gly Ala Ala Ala 1 5 10 15

Ala Leu Leu Arg Leu Lys Ala Ser Leu Ala Ala Asp Ile Pro Arg Leu 20 25 30

Gly Tyr Ser Ser Ser His His Lys Tyr Ile Pro Arg Arg Ala Val\$35\$

Leu Tyr Val Pro Gly Asn Asp Glu Lys Lys Ile Lys Lys Ile Pro Ser
50 . 55 . 60

Leu Asn Val Asp Cys Ala Val Leu Asp Cys Glu Asp Gly Val Ala Ala 65 70 75 80

Asn Lys Lys Asn Glu Ala Arg Leu Arg Ile Val Lys Thr Leu Glu Asp 85 90 95

Ile Asp Leu Gly Pro Thr Glu Lys Cys Val Arg Val Asn Ser Val Ser 100 105 110

Ser Gly Leu Ala Glu Glu Asp Leu Glu Thr Leu Leu Gln Ser Arg Val 115 120 125

Leu Pro Ser Ser Leu Met Leu Pro Lys Val Glu Ser Pro Glu Glu Ile 130 135 140

Gln Trp Phe Ala Asp Lys Phe Ser Phe His Leu Lys Gly Arg Lys Leu 145 150 155 160

Glu Gln Pro Met Asn Leu Ile Pro Phe Val Glu Thr Ala Met Gly Leu 165 170 175

Leu Asn Phe Lys Ala Val Cys Glu Glu Thr Leu Lys Val Gly Pro Gln 180 185 190

Val Gly Leu Phe Leu Asp Ala Val Val Phe Gly Gly Glu Asp Phe Arg